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AUGUST, 1940

Vol. 93, No. 8

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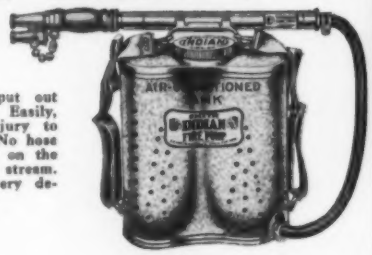

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FRED SHEPPERD
Editor
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The Publishers

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THE officials of a certain town in Maine turned down the suggestion to install an automatic alarm system connected with the fire department circuits as too exorbitant. The cost would have been only $600.

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FIRE
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AUGUST, 1940 VOL. 93, NO. 8

Preparation for the Unexpected

The International Association of Fire Chiefs, largely through the initiative of former Chief Ralph Scott of Los Angeles, has been doing an outstanding service to the cities of this country by making them conscious of the need of preparation for major catastrophes and outlining methods of preparation.

The Association Committee in Preparing for Major Disasters is now at work compiling further information on the subject, in addition to cooperating with those cities which are setting up disaster plans.

While war emergencies will occur only if this country becomes involved in the European or Asiatic conflicts, other disasters may strike at any time and at any locality. No commmunity is immune. The truth of this statement is evident when recent history is reviewed. Albany, Georgia, had every reason to expect freedom from a major catastrophe, yet a hurricane one morning last February did $5,000,000 damage and took eighteen lives. All New England felt free from major catastrophes, yet a hurricane a year ago last September did hundreds of millions of dollars worth of damage and took scores of lives. The little town of Little Falls, New York, anticipated no great disaster within its boundaries, yet a New York Central train piled up in wreckage there, taking a toll of nearly forty lives.

No city or town can claim freedom from a major catastrophe, and, being vulnerable, plans to meet such an occurrence are in order. A major emergency plan must fit local conditions and local facilities; but the essentials of all plans are fundamentally the same.

The International Association of Fire Chiefs recently issued to its membership a comprehensive outline of a plan which can be adapted to fit any locality. This plan, proven workable and fully effective at the Long Beach, Cal., earthquake a couple of years ago, has been even further improved, so that it now contains the best features of plans in force in cities both American and foreign.

Should war reach our shores, the immediate value of the plan would be increased tremendously.

Preparation for catastrophe by the International Association of Fire Chiefs is a commendable move, and represents a highly constructive activity.

Fred Shepperd

Junior Fire Department of Sebring, Ohio

By BERNARD A. STEED

HAVE you ever played the role of a helpless bystander at the scene of an accident? Have you ever heard, midst the aimless flutterings of a curious and excited crowd, the wailing plea of an injured child, "Why doesn't somebody do something?" To stand helplessly by for only a few moments may cost a life. But, even if the worst you did was to allow someone to suffer a little longer than necessary, you will carry with you a sense of guilt that is hard to erase.

Chief Selwyn B. Trainer

Value of Training

Contrast this scene with the following incident. A group of young men were skimming along the highway, carefree and happy, looking for all the world as if they were on a lark. Suddenly the driver grew tense. "Look, there ahead" he commanded, "an accident!" He quickly pulled the car up near the scene and off the highway. As the young men piled out of the car, their faces took on a serious mien. Gone was the air of gayety, and in its place came a purposeful intentness, the look of a surgeon entering the operating room. That it was a bad accident, could be seen by the condition of the two vehicles that had collided, but moreover, just off the pavement lay two bodies, and a man in a crouched position was dazedly staring at them. No other tourists had reached the scene as yet. The young men, after a quick survey, set to work using their knowledge of first aid. No unnecessary words were spoken. One of the injured, a woman, had a bad cut in the arm, and was bleeding profusely. A torniquet was applied and the two were revived. After a closer examination revealed that the injured could be carried safely, it was decided that their rescuers would take them to the hospital, rather than wait for an ambulance. In one hour the young men were on their way again, not so carefree, but with the knowledge that they had been of service.

These young men were members of the Sebring Junior Fire Department of Sebring, Ohio. In fact, at the time of the accident, they were on their way to take part in one of their many public demonstrations. When they arrived they reported to their chief "a short delay to administer first-aid at the scene of an accident."

However, first-aid is only one of the many courses in the curriculum of this organization. Besides this, they are taught the rudiments of fire fighting, fire prevention, ladder and hose work, general safety, and nearly everything that hints of service to others.

The department was first organized in October, 1934, by Selwyn B. Trainer, better known to the boys as "Sal". Mr. Trainer is a member of the Sebring Volunteer Fire Department, of which he is also Secretary. Entrance requirements were merely that the young man be interested in safety and service to others. The first meetings were crude affairs, for this was a new venture, being one of the first organizations of its kind in the country. In its sixth year and going stronger than ever, there is still no other department quite like it anywhere. They began with discussions and studies of the limited library of the department. But soon, this became insufficient, and Chief Trainer secured permission to use some of the old equipment to teach the boys with actual methods. They studied and practiced in the use of all fire appliances they could get. Pumps, ladders, hose, axes, ropes, masks, chemicals, all these came under their concentrated study.

After a few months of this work, they became fairly proficient in the use of all these articles, and began to show the public what they had learned. These public demonstrations were not to show off, but rather,

Crack Drill Team of the Junior Fire Department with Asst. Chief Royal Scofield in the Center

to educate the public in the dangers of fire, and to convince it of the need for a well equipped and manned fire department. Soon, their work began to receive recognition in the way of invitations to appear at public gatherings far and near. To date they have given approximately thirty public demonstrations, and have received the plaudits of all who have seen them perform.

Value of Plan Found Early

One of the first to recognize the possibilities and importance of this movement was the late Prof. R. B. Criswell, of the University of Maryland. Mr. Criswell was then connected with the Ohio Inspection Bureau. Whenever possible he would drop in on the boys, giving them valuable pointers, and assisting them immeasurably.

It was through his suggestions that the department first began to make use of the regular bulletins supplied by the Inspection Bureau. Besides this, he would conduct drills and classes, often bringing with him new pieces of equipment. This department felt the loss of a real friend at his death. They attended his funeral in a group, and at their fifth birthday banquet, held in October, 1939, they offered an appropriate ceremony in his memory. Today, their uniforms bear a white cord around the left sleeve at the shoulder, as a mark of respect to him.

Mr. Trainer, the organizer, is Chief of the Junior Department. Other officers of the company are elected by competitive examinations. Royal C. Scofield, a member since the inception of the organization, is Assistant Chief. There is also a Captain and a Lieutenant. Meetings are conducted each Thursday evening for about two hours, longer if necessary. The boys convene in the local firehouse, and in favorable weather, they practice their demonstrations in a nearby lot.

The town of Sebring has benefited greatly from this young organization. They are particularly useful at public gatherings, where they often act as traffic directors and in other similar capacities. At times, when large funerals are held, the young men are stationed at different strategic points along the route to keep it clear. During summer and roller skating season, a street is blocked off for the skaters, and at least one Junior Fireman is on duty to keep order. Last winter a larger vacant lot was flooded for the purpose of ice skating. Floodlights were erected and a small season fee was charged for the privilege of the pond. Through a cooperative arrangement, the department had a Junior member on duty each evening to keep order and generally oversee the affair. For this performance of duty the Junior Department received all cash in excess of the electric light bills, this money to be used in the interest of the department. There have been times when the aid of the Junior firemen in fighting local fires has been enlisted.

As to the personnel itself, there are, at the present time twenty-four members. The youngest of these is seventeen years old, while the oldest regular member is twenty-six, having been on the department more than five years. Chief Trainer has attended six consecutive Fire College sessions, which are held at Ohio State University annually, each lasting from two to four days. Several of the junior members accompanied him on these educational journeys, while Assistant Chief Scofield has attended three different sessions. Practically all of the members have attended at least one of the regional fire schools, of which Chief Trainer has attended four. He was Vice-Chairman of the Fire Prevention Section of the All Ohio Safety Congress in 1938.

Demonstrating the Method of Attack

Two Members Prepare Ropes and Ladders for the Flagpole Raise

Little Financial Trouble

The junior department has had very little difficulty financially, chiefly because they have never needed any great amount. Since Sebring's senior department is a volunteer outfit, it usually conducts some entertainment at least once a year for the purpose of raising extra funds. The juniors assisted them in a Harvest Home Festival celebration, at which the firemen controlled all the concessions. The Junior Firemen received a cash settlement for their aid, this money

to be spent as they wished. It partially covered the purchase of uniforms, made up of trousers, shirt jacket, cap and badges. After the outright purchase of these uniforms, each member was charged a rental fee of two dollars, which allowed him to hold the uniform indefinitely.

Serviceable Uniforms

In the selection of uniforms, it was finally decided to purchase black material. The trousers are of the slack type, with a white piping down the outside of each trouser leg. The jackets are of the same material, cut in the style of the pea jacket, with the letters SEBRING J. F. D. inwhite, sewed on the back. On the front of the jacket each member has the shortest version of his own name in letters of the same material as those on the back. Shirts selected were gray broadcloth, made in uniform style, with two breast pockets. For regular members, black uniform caps were purchased, while the officers wear white caps of the same type, but with black visors. Each cap carries an insignia on the front. Coat insignia are much the same as any other fire department wears. At formal functions, the members wear white gloves in contrast to their black uniforms.

Demonstration in January

The most recent demonstration given by the department was at the twelfth annual fire department instructor's conference, held in Memphis, Tenn., January 9 to 12 of this year. Twelve members, including the Chief, attended the conference at the invitation of Chairman Richard E. Vernor. After practicing each morning in the six-story brick and metal drill tower at Central Station, they performed, in the short space of ten minutes, a drill that was packed with potent action. They demonstrated hose evolutions, both man-carry and hoist, fire rescue, ice rescue, first-aid, laddering a building, two and four-man ladder drill, rescue off ladder and life-line rescue. Their performance was praised by many experts in the field of fire fighting.

Plans are, at present, being formulated for the organization of a National Junior Fire Department. A manual of instruction together with a new and more complete set of rules and regulations is being drafted for this purpose. However, here is a partial list of those in effect in the local organization.

1. Be it clearly understood by each member of this department that *you have absolutely no legal authority,* either at station or at fires, and that you are in no way connected with the village of Sebring, other than as a citizen.
2. Each applicant for membership, if under age, must first receive the consent of his parents or guardian before he may become an active member of the department.
3. Each member shall be required to take an active part in all functions of the department, whether social or otherwise.
4. Absence from meetings, drills or any other functions of the department three times within any three-month period shall constitute cause for suspension from the department, unless a reasonable excuse is presented.
5. Any member who, through words or actions, is guilty of injuring the morale of the department or its members, shall be liable to suspension.
6. Use of the badge or any other sign of rank to exercise authority which he does not possess, shall constitute cause for a member's dismissal.
7. No Junior Fireman shall be permitted in the Senior Department quarters unless accompanied by an active senior member.
8. No Junior Fireman shall be permitted to ride on fire apparatus when answering an alarm.
9. No Junior Fireman shall in any way hinder a senior fireman in the discharge of his duty.
10. No Junior Fireman shall be permitted on the premises, where the senior department is fighting a fire, unless he is called to aid.
11. Each member shall be required to conduct himself in an orderly and respectful manner at meetings, drills or fires, and shall be expected to do so at all times.
12. Each member shall strive to keep the department quarters neat, clean and orderly.
13. Each Junior Fireman shall obey to the best of his ability all orders given him by the officer or officers in charge.

Chief Scott Restored

Cuyahoga Heights Village, Ohio, must re-establish the office of Fire Chief in accordance with the ruling of Common Pleas Judge in Ohio. The ordinance passed by the Cuyahoga Heights Council which abolished the office of Fire Chief, causing Chief Scott to lose his job, was considered contrary to the statutes of Ohio. Under this ruling, Scott will automatically return to his office.

Maine Chiefs Meet

The quarterly meeting of the State Association of Fire Chiefs of Maine was held at Camden, Tuesday, July 9, with the Camden Fire Department as hosts. At the opening of the morning session, seventy-five members and guests were present, with the President, William H. Clifford, 3rd, Cape Elizabeth, presiding.

The address of welcome to the association was made by Town Manager Percy R. Keller, Camden, and the response by Chief Solomon Herman, S. D. Warren Company, Westbrook.

Chief Allen F. Payson of the Camden department gave a very interesting history of the Camden department, from the time of the hand tubs to the present modern equipment.

Chief George R. McCurdy of Augusta presented a brief report on the Fire Schcol held in Augusta June 21 and 22.

Chief Allen Payson gave a further report on the Fire School and gave an outline of the courses given at the preliminary school. Sixty firemen from various parts of the State enrolled for this first school, and were so enthusiastic over the instruction given that a second and third school were asked for. This school, which is sponsored by the Maine Chiefs Association in conjunction with Department of Education and the State Insurance Commissioner, is the first step in the training of the Maine firemen.

State Insurance Commissioner C. Waldo Lovejoy, who is a member of the State Defense Committee appointed by Gov. Lewis O. Barrows, gave the members a very concise outline of the work of this committee, together with a picture of what part the fire departments might be called upon to take in the program. Edmund Devlin, who is associated with insurance interests, gave a talk on the importance of the cooperation of the fire departments in casualty insurance, and also spoke briefly on liability insurance for firemen in their work of fire fighting.

During the business session of the association, following the papers presented, the association voted for the appointment of a committee to cooperate with the State Defense Committee. The president appointed Chiefs Charles O. Spear, Jr., South Portland; Irving Doyle, Brewer, and George McCurdy, Augusta.

During the morning session of the association the ladies were entertained at the Camden Snow Bowl by Mrs. Allen F. Payson. At the close of the session the party went to Shermans Point, where a regular New England Clam Bake and lobster dinner was served in the open to the 123 present. Following the dinner, those who wished were taken on a sail in beautiful Camden harbor. The next quarterly meeting of the association and annual meeting will be held at York Harbor, October 8.

J. W. Randlette.

Schenectady Reports Low Fire Loss

In the monthly report by Fire Chief J. J. Higgins of the Schenectady, N. Y., Fire Department, fire losses in Schenectady for the first six months of this year show a decrease of approximately fifty per cent over the fire loss for the same period last year. There were 112 fires during the first six months of this year with a loss estimated at $26,494 as compared with 132 fires, for the same period last year, with an estimated loss of $54,142.

Chief Higgins attributes the decrease in fire loss to regular fire inspections, the fire prevention campaign, the education of the public and the efficiency of the Fire Department.

Short School to Meet

The Wisconsin State Fire School will meet at the University of Wisconsin in Madison, Wis., on August 20 to 22 for the Wisconsin State Fire School. A well rounded program of lectures has been planned by recognized authorities on the various subjects. Instructions in evolutions in first aid, hose, ladders, ropes, knots, salvage, small tools and special equipment will be given.

Marine Fire Fighting in the Port of New York

By ALBERT B. CARLSON
Deputy Chief, Commanding Marine Division, New York Fire Department

MARINE fire fighting dates back to the early years of the nineteenth century. At that time, New York City covered an area between City Hall and the Battery.

After a few disastrous fires on the water front the Common Council ordered a floating engine from an English manufacturer. The engine arrived and was placed on a barge in the East River at the foot of Roosevelt Street.

The barge was propelled by oars and the pump was of the crank or coffee mill type, operated by twenty-four men at the cranks. This was the most primitive type of firefighting equipment.

Early Waterfront Fire

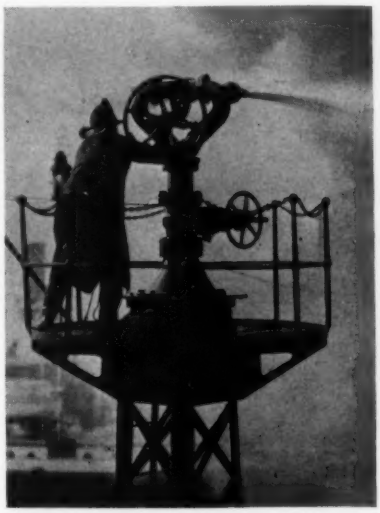
During the devastating conflagration of 1835, the river was frozen solid, including the floating engine. At this fire, in order to obtain water, land engines were lowered down on the ice and holes were chopped through the ice for the suctions.

The first steam fireboat, the "John Fuller," was hired by the city in 1866, and was operated by paid firemen. This was really the beginning of our present marine fire-fighting force. This boat continued in service until the completion of the original city owned fireboat, the "William F. Havemeyer," which was first placed in service at the Battery in 1875. Her pumping capacity was 4,500 gallons per minute.

Boat Built in 1881

The next boat, built in 1881, was named after Zophar Mills, a prominent New York merchant, who was a conspicuous member of the volunteer fire department. This boat was the longest boat in point of service, having been in service until 1935, with a background of fifty-three years of firefighting in the Port of New York. It was the first iron hulled steam fireboat in New York. She was 120 feet long and 25 feet beam, her pumping capacity was 6,000 gallons per minute.

The city of Brooklyn, across the river, had two fire boats, the "Seth Low," built in 1885, with a capacity



A Fireboat in Action

of 3,500 gallons per minute, and the "David A. Boody," built in 1892, with a capacity of 6,500 gallons per minute.

The "Boody," after serving Brooklyn and New York for a period of twenty-four years, was declared unfit for service. All the equipment was stripped from the boat. It was tied up to a Staten Island pier with a fireman watching it, pending its disposition.

One night the boat sank. The fireman managed to get ashore minus his rubber coat, boots and fire helmet. Subsequently a towboat owner bought the boat for $1,250. While the boat was being raised from the bottom of the bay, the fireman requested his fire clothing from the owner. Nothing doing, said the towboat man. I bought this boat as is, and your fireman's outfit belongs to me.

The "New Yorker" was placed in service at the Battery in 1891 and it was then considered the latest and most powerful boat of its kind, having a capacity of 12,000 gallons per minute, and equipped with triple expansion engines.

The boat was also equipped with portable corrugated iron shields. When fighting hot fires at close range the firemen would place the shields in front of them while directing streams at the fire. The boat also carried six-inch hose for supplying land lines. This hose was so heavy it took the entire crew to carry one fifty-foot length.

New Boat Launched in 1897

In 1897 the "William L. Strong" was launched. She was named after the Mayor in office at that time. The following year the "Strong" went in service, so did a new Mayor, Robert Van Wyck. The boat was then promptly renamed after him. When he was defeated at the next election, the former name, "William L. Strong" was restored, and is still known by that name. Incidentally, this boat is still in service at Staten Island. It is interesting to note that most of the New York fireboats were named after the Mayors. This was the first and only instance where a boat was renamed.

In the year 1898, consolidation of New York and Brooklyn took place, resulting in an interchange of assignments of fireboats between boroughs. At that time there were six fireboats in service in New York Harbor with a total pumping capacity of 40,000 gallons of water per minute.

Trouble With Tugboats

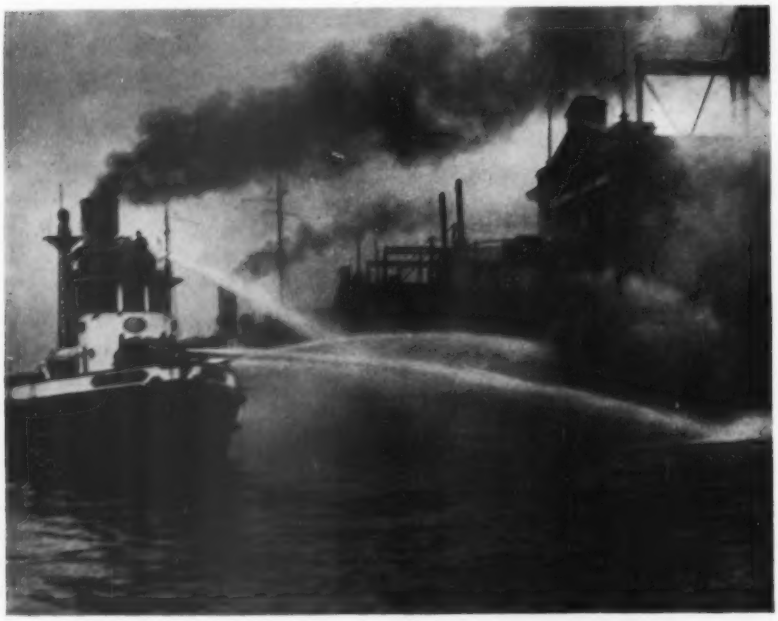
In the early days of firefighting in New York harbor, the fireboat commanders were having their own troubles with tugboat captains. On occasion of river conflagrations the fireboats were seriously hampered by the activity of tugboats anxious to establish a claim to salvage by attaching a hawser to the burning vessel. In 1902, legislation was passed giving the fireboats similar jurisdiction to that which it then exercised through

Address at the National Fire Protection Association at Atlantic City, New Jersey, May 8, 1940.

its fire apparatus companies on land.

In 1903 and 1904 the fireboats "Abram S. Hewitt" and "George B. McClellan were built. The capacity of these boats was 7,000 gallons per minute each.

Prior to 1904 the fireboats were attached to various land battalions in the city, depending on where the boat was located. It was found that the fireboats were not given proper care and attention and were in a deplorable state, needing immediate repairs amounting in the aggregate to thousands of dollars.



Fireboats at Work at the Furness-Bermuda Line Pier in New York

Force Reorganized

During the year 1904, a complete reorganization of the marine firefighting force took place. The fireboat fleet became known as the 19th Battalion, with Battalion Chief John Kenlon in command.

In 1908 three more fireboats were built. The "James Duane," "Thomas Willett" and the "Cornelius W. Lawrence," with a total of 25,000 gallons capacity.

The 19th Battalion became the Marine Division in 1909, when John Kenlon was promoted to Deputy Chief. Three more boats were built, the "William J. Gaynor" in 1914, the "John Purroy Mitchel" in 1921, and the "John J. Harvey" in 1931, totaling 32,000 gallons per minute. The "Harvey" was named after John J. Harvey, a pilot on the "Willett" who was killed in the performance of duty while fighting a fire in the German steamer "Muenchen" at Pier No. 42, North River, on February 11, 1930.

During the progress of the fire a terrible explosion took place that tore a large hole in the side of the vessel, and fragments of steel flew through the air like so much shrapnel. Harvey was struck on the head and thrown from the deck of the fireboat into the river. Many of the men, including the then Deputy Chief John J. McElligott, who was in command of the Marine Division at the time, were thrown to the deck by the force of the explosion. It was very fortunate that others were not killed.

World War Problems

During the World War the Port of New York was teeming with activity, transporting troops, munitions, war materials, machinery, dangerous chemicals, foodstuffs, etc. In this period, more devastating fires occurred in piers, vessels and wharves than at any time in the history of the port. Fires increased 100 per cent. In the year 1918 there were 201 fires in vessels and sixty-three in piers and wharves. The Marine Division of the Fire Department was taxed to its utmost, although at that time there were ten fireboats with a total capacity of 78,000 gallons of water per minute. It was imperative that something had to be done to strengthen and augment the service.

A survey of all the railroad and other tugboats was made regarding pumps, hose, nozzles, etc., resulting in the establishment of a fleet of 143 auxiliary fireboats. The crews of these boats we instructed and drilled in firefighting, thereby rendering valuable service to the fire department during the war.

The task of protecting the Port of New York from fire with its conflagration potentialities is tremendous. New York is the most important seaport in the world, as more than 22,000 ships and vessels enter and leave this port each year. These vessels carry every conceivable kind of merchandising: cotton, jute, hemp, inflammable oils, chemicals, explosives, etc.

Fireboats Kept Busy

During the year 1939, the fireboats responded to 1,155 alarms. We had 100 fires in vessels and 119 in piers and wharves. This does not take into account the number of fires that the fireboats operated at on land, adjacent to the waterfront.

There are 722 piers in the waters of the City of New York alone; most of them are of the old type with no fire walls in the sub-structure. The piles under the piers are soaked with bilge oil and present very grave fire hazards. Fires under these piers are very difficult to extinguish, as very few of them have fire hatchways for the use of revolving nozzles and cellar pipes as carried on our fireboats.

The New York Dock Department had in the past twenty-two years constructed piers embodying the latest fire safety features, and in effect have carried out to a great extent, principles of pier construction as recommended by the National Fire Protection Association. It can be expected that fires occurring in the sub-structure of these piers will be easily controlled.

Our latest addition to the fireboat fleet is the new diesel electric fireboat "Fire Fighter," which was built under the personal supervision of Commissioner John J. McElligott. It is the latest and most powerful fireboat in the world and cost nearly a million dollars. It was placed in service November 16, 1938.

The boat is 134 feet long and 32 feet beam, and has a total displacement of 583 tons. There are four centrifugal pumps capable of delivering 22,000 gallons of water per minute at 150 pounds pressure. There is a total of nine monitor nozzles, one at the bow, one on the mast aft, which is fifty-five feet above the water line when elevated. The other nozzles are

on platforms above the deck. The bow nozzle has a five-inch orifice and delivers 6,500 gallons of water per minute at 150 pounds. At 300 pounds pressure it will deliver more than three-quarters of a ton of water a second. The stream from this pipe is so powerful it will tear a pier shed apart. The firemen have named the pipe "Big Bertha."

The boat is equipped with air compressors and pneumatic pavement breakers for drilling holes through concrete pier decks, smoke ejector, self-contained oxygen masks, foamite, acetylene cutting torches and every known appliance for extinguishing ship and pier fires.

New Boat Gets Call

On January 23, 1939, shortly after midnight, the fireboat "Fire Fighter" had its first big job. The British steamship "Silver Ash" was ablaze at a pier at the foot of 57th street in Brooklyn. The ship was a 7,750 ton freighter, 443 feet long, 58 feet beam. The fire started in the engine room due to a broken oil line. Heavy black smoke was coming from the engine room and later the entire engine room was ablaze. Foamite lines were advanced to the upper iron grating platform in engine room, skylights were opened over the engine room for ventilation. The foamite was not effective for the reason that it could not be applied properly to the burning oil as the foamite streams were striking several iron grating platforms and stairways at different levels of the engine room before they reached the fire. Lines could not be advanced to the floor of the engine room on account of the terrific heat. The fire spread to the adjoining cargo hold.

Cargo Contained Cyanide

The cargo consisted of cyanide in cans, 270,000 pounds of rubber, automobiles and automobile machinery. Hose lines were stretched to open hatchway and streams were directed into hold. At about two a. m. there was a terrific explosion in the hold aft of the engine room, which blew the hatch coverings in the air; several of the firemen were thrown to the deck. This was an extremely difficult fire to fight on account of the severe cold, ice-coated decks, heavy black smoke from the rubber, and possibility of men being killed by deadly fumes from the cyanide.

During the night it was necessary to back the lines off the ship and fight the fire from the pier and fireboats.

Several holes were burned through the hull of the ship on the starboard side with acetylene tourches, and operated streams through these holes to extinguish the fire.

The fire was confined to the engine room and one cargo hold. Twenty-nine pieces of land fire apparatus and three fireboats operated at this fire.

Cutting Through the Concrete Floor of a Pier So That Cellar Pipes Could Be Used

The fireboat "Fire Fighter" had its first baptism of fire and successfully operated thirty hose lines, using only two of her four pumps, discharging a total of 2.5 million gallons of water. The boat operated at the fire for twelve hours.

The personnel of the Marine Division consists of two Deputy Chiefs, three Battalion Chiefs, ten Captains, twenty-eight Lieutenants, forty Pilots, eighty-seven Marine Engineers, fity-two Marine Stokers and 255 Firemen, working on an eight-hour basis.

Supervising Company

We also have a Fire Service Supervising Company consisting of one Lieutenant, three Marine Engineers and six Firemen who are specialized marine mechanics. They respond to large fires and supervise the operation of machinery and pumps, and make adjustments, repairs, etc., on the fireboats operating at the fire.

The officers and men selected for the Marine Division in most cases are those with experience on vessels and boats of various kinds. We have men that have served in the Navy, Coast Guard, steamships, tugboats, ferryboats, etc. Some of the men have worked in shipyards at various trades.

The entire personnel of the Division is made up of uniformed members of the Fire Department, except the marine stokers. The pilots and engineers are licensed by the United States Department of Commerce, Bureau of Marine Inspection and Navigation.

We have an instruction and drill period every day to familiarize the men with the proper handling of tools and appliances, while operating at fires in ships, etc. Pilots and engineers conduct classes in navigation and marine engineering.

Ten Company Districts

The entire waterfront is divided into ten company districts. Each company commander selects competent men to inspect the fire appliances on piers, wharves and bridges, to see that they are in proper operative condition, also to see that proper aisle spaces are maintained between merchandise on piers, and to see that all laws relating to fire prevention and protection are being complied with.

The Marine Division of the New York Fire Department of today has ten fireboats and one fifty-five-foot fireboat tender of the cruiser type. All are equipped with the most mod-

(*Continued on page* 425)

Radio Proves an Indispensable Department Asset

EVERY year, in increasing numbers, Fire Departments throughout the country are awakening to the advantages that are available in routing and dispatching trucks on various duties, through the use of the radio. As a result, an ever increasing number of the departments are installing either one-way or two-way sets on the apparatus. In order to determine the extent of the installation of radios by the various departments, a survey was made by FIRE ENGINEERING among a representative group of Fire Departments. In the pages following are outlined the various opinions on the use of the radio of those reporting. Therein may be found many useful suggestions for increasing the efficiency of the department as a whole.

Santa Barbara, Cal.

C. L. Tenney. Chief

The cars of the Chief, Deputy Chief, Fire Marshal, Squad Company, as well as the Chief's private car and one utility truck are equipped with one-way radios. One Chief's car and one Deputy Chief's car are equipped with two-way equipment. In addition to the receivers in the cars, a receiver is installed in each of our five stations which is automatically turned on when the alarm bell is sounded.

All alarms are broadcast by radio at the same time that the operator is giving the information to all stations over the all-station telephone hook-up. These receivers are installed in the apparatus room and give all members the same information as is being given to the man on watch, by telephone. At the same time, chief officers who might be out in cars, and the police radio cars, receive the alarm at the same instant as it is being received in the fire stations. It is not at all unusual to have the streets closed to traffic by the police when equipment arrives at the scene of a fire. Very good cooperation is enjoyed by this department by the Santa Barbara Police, and this is only possible by the use of radio.

Many alarms are received at Alarm Headquarters from police prowl cars and from Chiefs' cars, who discover fires in their travels about the city. Within the past year, on three different occasions, additional apparatus was called by the Chief, while responding to the original alarm, due to the headway the fire was making. The same was being observed while crossing the city. In one instance I had transmitted a second alarm at least five minutes before I reached the scene of the fire.

On May 31 of this year, I transmitted a second alarm when only five blocks from headquarters and immediately upon arrival at the fire, transmitted a third alarm, giving detailed instructions for companies to follow on their arrival. At the same time I radiod for outside help and called the off shift men. If it had not been for the radio at this particular fire, we would not have been able to hold the fire where we did, because the companies were in position so quickly due to teh radio set-up.

At a fire last October, in the mountain area adjoining the city limits, 181 radio transmissions were handled through the alarm office in a six-hour period, directing companies to different locations, calling chief officers and giving out other orders.

We have found the radio beneficial in that it permits chief officers to be in constant contact with headquarters; it permits instant receipt of all alarms by Chief officers and the police radio cars; it makes it possible to call for additional equipment immediately without the loss of time in locating telephones or alarm boxes; it permits the placing in service of companies at fires where their equipment is not being used, but where additional manpower can be utilized.

Since using the radio in the fire service, I believe it to be definitely indispensable to efficient fire fighting due to the speed with which companies can be dispatched and placed in position, and through the constant contact with headquarters resulting in direct response of companies to additional alarms elsewhere.

Our radio is operated in connection with the police radio, by remote control equipment at fire alarm headquarters. The fire alarm operator is in constant attendance. Practically every member of the department is qualified to operate the radio equipment through a license issued by the Federal Radio Commission. I find that by having the remote control feature in the fire alarm office, more efficient use can be made of radio in the fire service because there is no delay in transmitting and receiving messages to department cars as in the case where calls have to be relayed by the telephone to police headquarters.

Our remote control equipment, our car transmitters and receivers are built by a member of this department who is paid additional compensation in addition to that for his regular position.

Jersey City, N. J.

F. J. Ertle, Chief

All six Chiefs' cars are equipped with a two-way radio telephone receiving and transmitting set. The radio is operated by the Police epartment. Through this medium the sets were installed in each of the Chiefs' cars for use in the Fire Department.

Upon the receipt of an alarm, the Chief officer, upon arrival at the scene, may use the radio to summon additional help if the fire warrants it. Through the use of the radio, transmissions may be directed to multiple alarms or summon ambulances or any public utility that may be needed for the emergency. The Chief officer is in a position to advise Fire Headquarters of the circumstances or potential conditions that may be anticipated. Coordination of this service between the Fire and Police Departments is made available by direct lines to and from the operating rooms of both departments. Personally, and from past experience, it is my opinion that the radio has come to be an indispensable asset to the Fire Departments of the nation.

The radios we use were furnished through an electrical contractor.

Beaumont, Tex.

J. D. Southwell, Superintendent of the Signal Division

In our department, six cars are equipped with one-way radios and five cars are equipped with two-way sets. We have found the radio is most benecial in keeping in contact with the apparatus after it has left its station. It has proven so to the extent that we propose to equip every piece of our equipment with two-way sets. I believe that the radio is an indispensable asset to efficient fire fighting.

Our radio is operated in connection with the police radio. There is a qualified operator on hand at Police Headquarters twenty-four hours a day. We use Philco receivers, Link car transmitters, and Composite central office transmitters.

Bellingham, Wash.

I. T. Jones, Chief

We have one-way radio sets installed on the Chief's car, an aerial truck and a squad car. We have found the radio to be very beneficial in giving additional directional information as to the location of the fire while the truck is en route; in recalling the equipment en route to the fire; and in transmitting messages to the Chief or his Assistants while at the fire or while absent from the station. We do believe the radio to be an indispensable asset to efficient fire fighting.

Our radio is operated in connection with the police radio. There is a qualified operator on hand at Police Headquarters twenty-four hours a day. The receivers are made by Philco and Motorola; the transmitter was built by the Police Department.

Spokane, Wash.

W. P. Payne, Chief

There are five cars in the Spokane Fire Department equipped with two way radio sets. In addition to this, two of the police prowl cars are equipped with sound systems, normally used in directing traffic. However, at fires and in special cases where large groups of people are involved, these units have proven of great value. With their use, the Chief can be heard by his men inside a building or out on the roof. In one case, when the Fire Department put on a demonstration to the public, the sound system was used to explain the operation of the various pieces of fire equipment.

The use of the radio is one of the most progressive movements that has taken place since my connection with Fire Departments. I do not know of a unit that will assist in speeding up operations of a fire department as the two way sets do. It is the most essential asset to efficient fire fighting when it comes to sending in greater alarms. It is faster than boxes or telephones.

Our radio is operated in connection with the police radio, but we have our own operators. The radios we use were built by our technician in the radio shop.

Stockton, Cal.

R. E. Thompson, Chief

The cars of the Chief, Assistant Chief, and the mechanic of the department, as well as all fire stations, are equipped with radios. The stations are in direct connection with the Central Fire Alarm Station listening to all telephone fire calls received by the Fire Alarm Station and every other fire station. We have found the radio essential to the Fire Department in all and any phase of transmitting and receiving. I believe that it is an indispensable asset to efficient fire fighting.

Our radio is operated in connection with the police radio. There is a qualified operator on hand at headquarters twenty-four hours a day. We use R.C.A. sets.

Dearborn, Mich.

R. E. Mottesheard, Chief

The Chief's car has a one way set, but the Rescue Squad has a two-way radio installed. We have found the radio beneficial in reporting and giving information to the Central Office pertaining to fires or the nature of the emergency call to which they responded. Calling for special equipment, in case of accidents, has been greatly facilitated through the use of the radio. Radio has made it possible for apparatus to report in on returning to quarters thereby making them available for further fire service. I believe that the radio is an indispensable asset to efficient fire fighting.

Alhambra, Cal.

Bovet, Chief

The Chief's car, Assistant Chief's car, Fire Alarm truck, and the ambulance are all equipped with two-way radios. We have found the radio beneficial in that the above cars are in constant touch with headquarters, when out of the station. At least one of the above cars answers every fire alarm, and the radio is generally used for calling any additional apparatus or transmitting any other messages to headquarters.

The radio has proven itself on a number of occasions to be very efficient, although it is a matter of opinion.

Our radio is operated in connection with the police radio. There is a qualified operator on hand at headquarters twenty-four hours a day. Our radios are built by the department.

San Bernardino, Cal.

C. N. Niday, Chief

One car is equipped with a one-way radio, and three cars are equipped with two-way sets. We have found the radios beneficial in that it provides direct communication with headquarters at all times; it is the best method of sending in multiple alarms and special calls; it aids in assigning companies to cover up or to route them to large brush fires; and also it places the company back in service while en route to their stations or while they are standing by at a fire. I believe that the radio is an indispensable asset to efficient fire fighting.

Our radio is operated in connection with the police radio. There is a qualified operator on hand at Police Headquarters twenty-four hours a day. We use Motorola receivers and ultra high frequency transmitters.

Lancaster, Pa.

H. E. Miller, Chief

I have a one-way set in my official car. I have found it to be beneficial in several ways. I can pick up fire calls on the street, and I can be easily reached while at a fire. I am in constant contact with the fire department at all times. I believe that the radio is an indispensable asset to efficient fire fighting and every department should be equipped with a radio.

My set is connected with the police radio and all fire calls are sent out to the police cars at the same time. There are qualified operators on duty at all times of the day. I use a one-way Motorola in my car.

Topeka, Kans.

W. J. Cawker, Chief

Ten pieces of apparatus, the Assistant Chief's and Chief's cars are equipped with two-way sets. All trucks will be equipped with two-way radios as fast as the transmitters can be built by our radio technicians. We have found the radio beneficial in controlling the movement of apparatus responding to alarms, and by placing the apparatus back into service as soon as found not needed at a fire.

We consider the radio to be the greatest development of modern times in the fire fighting service, it being the most forward step taken since the adoption of motorized equipment.

Our radio is operated in connection with the police radio. There is a qualified operator on hand at Police Headquarters twenty-four hours a day. We use Motorola receiving sets, and transmitters constructed by the department radio technician.

Fresno, Cal.

W. R. Williams, Chief

Four cars are equipped with one-way sets and two with two-way sets. We have found them beneficial in calling for additional help and in keeping the Fire Alarm Station informed as to the progress of disaster. We believe that the radio is an indispensable asset to efficient fire fighting.

Our radio is operated in connection with the police radio. There is a qualified operator on hand at Police Headquarters twenty-four hours a day. We use sets built by the Police Radio Technician.

Norwood, Ohio

J. T. Doherty, Chief

The Chief's car and a utility car are equipped with a radio set. We have found the radio beneficial in receiving calls and other information when fighting fires, and when away from headquarters on other business. I believe that the radio is an indispensable asset to efficient fire fighting. Our radio is operated in connection with the police radio. There is a qualified operator on hand at Police Headquarters twenty-four hours a day. We use one Motorola and one American-Bosch receiver.

Seattle, Wash.

William Fitzgerald, Chief

Five cars are equipped with one-way radios and six cars and two fireboats are equipped with two-way radios. Use of the radio has been found beneficial because it increases the mobility of the apparatus and Chiefs; it makes possible a two-fireboat response on a first alarm; and it establishes rapid two-way communication between the Fire Alarm Office and the fire ground. The radio is not indispensable, but it is very essential.

Our radio is operated in connection with the police radio. There is a qualified operator on hand at Police Headquarters twenty-four hours a day. Some of the sets we are using have been purchased and others have been built.

Kingston, N. Y.

J. L. Murphy, Chief

There is a one-way radio set installed in the Chief's car. When I am on inspection work that usually takes me to the outlying sections of the city, I find the radio beneficial, because in case of fire I can be notified without delay. I believe that the radio is a very valuable asset to the Fire Department.

Our radio is operated in connection with the police radio. There is a qualied operator on hand at Police Headquarters twenty-four hours a day. We use a Motorola set.

Phoenix, Ariz.

L. B. Barnum, Chief

In our department, one fire truck is equipped with a one-way receiving set as are three cars; two other cars are equipped with two-way radios. We have found the radio beneficial in calling for more equipment; in dispatching trucks to another fire; in correcting the location of a call in case an erroneous location was first given; and it speeds up fire service. I believe that the radio is an indispensable asset to efficient fire fighting.

Our radio is operated in connection with the police radio. There is a qualified operator on hand at Police Headquarters twenty-four hours a day. The radios we use were built by the department.

Long Beach, Cal.

A. C. Du Ree. Chief

At the present time, we have one two-way set in the Assistant Chief's car and one-way sets in each of three Battalion Chief's cars. The one-way sets are a great help, but they do not complete the service the way a two-way set does. Many extra miles of travel can be eliminated when the dispatcher is able to contact the car en route and hold them up when the emergency does not warrant their services. We find the use of two-way radios has placed the officer in the car in direct contact as though he were in his office. I believe that the radio is an indispensable asset to efficient fire fighting.

CAMDEN EXPERIENCES THE MOST DISASTROUS FIRE IN ITS HISTORY

Explosions Level a Chemical Plant Within an Hour and Cause Flames to Spread to Nearby Buildings

By GORDON R. MULLINS

THE most disastrous fire in the history of the city of Camden, N. J., occurred in the afternoon of July 30, destroying the central plant of the R. M. Hollingshead Company and approximately sixty homes and stores in the surrounding area. This area is bounded by Ninth, Market, Tenth, and Cooper streets. Market street is the main traffic artery from the Delaware River bridge to the shore.

The first alarm was answered by two engines, one truck company and the Deputy Chief. Within six minutes, a general alarm was transmitted and additional outside calls sent to Philadelphia and the counties of Camden and Gloucester. Philadelphia responded with nine pieces of apparatus under the command of Battalion Chief McKnight.

Explosions Spread Fire

A series of explosions which rocked the building, caused the spread of the fire both inside the plant and to nearby homes and stores. The factory building was totally destroyed within an hour after the start of the fire, but the office building across ninth street was saved. Every pane of glass in the latter building was blown in from the force of the explosion

The fire spread with unbelievable rapidity, fed by one explosion after another. The first occurred in the northwest section of the five-story brick building. The flames spread fanwise all over the building, causing Chief John Lennox to give up hope of saving the block. The Pennsylvania Railroad runs diagonally through the block from Tenth and Market streets to the front of the office building. A number of tank cars were on this siding, and in the first half-hour, two of the cars had exploded. Volunteers were able to push another car out of danger. The fire jumped the siding and entered the loading platform; then it jumped to the homes and stores on Tenth Street. From that time on, it was just a case of trying to confine the fire to the four blocks surrounding the building.

Homes Destroyed and Damaged

Twenty-two homes on Cooper street, fourteen homes on Carpenter Street, six homes, including a nine family apartment house, on Ninth Street between Market and Cooper, and four stores and five homes on Market Street were either destroyed or badly damaged. Approximately sixty families were left homeless by the fire. The Red Disaster Unit was busy getting families reunited and sheltered. The damage to the entire area will run into probably two and one-half million dollars according to the Underwriters.

The draft on the water system was so great that couriers had to be dispatched throughout the city to warn the inhabitants against any unnecessary use of water. The Campbell Soup plant had to close down shortly after, due to the water shortage.

Looting started almost immediately after the fire started as a couple of arrests were made within the hour. Police had a difficult time protecting one youth from the crowd when there were cries of "kill him." Mayor Brunner declared a state of emergency and called out the 114th Infantry of the New Jersey National Guard.

Although badly undermanned, and unequipped as far as new apparatus is concerned, the Camden Fire Department put up a fight that will go down into the annals of the Firemanic History. Some years ago, the department had a

(*Continued on page* 426)

Upper: Aerial View of the R. M. Hollingshead Company Fire in Camden, N. J. Lower: One of the Many Explosions, Which Leveled the Building, is Shown Taking Away Part of the Side Wall

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

METHODS USED FOR DRYING FIRE HOSE

IF hose is not carefully dried out after use, then generally a growth of mildew will attack the hose or the jackets will rot. In an effort to prevent this, some departments will wash and scrub the hose after each use and then hang it from drying towers or on racks.

There are many Chiefs who favor the use of racks, while others feel that the tower method of uniform drying is the best.

The problem in full is printed in the box on this page, while on the following page, is the one that will be presented in the coming issue.

J. F. Hoseman, Chief, Vicksburg, Miss.: All stations in our department are equipped with inclines. The hose, after being thoroughly cleaned and inspected, is then placed on the inclines for drying.

Considering climatic conditions in this section of the South with reference to excessive moisture and the method we use in drying, extra precaution must be taken in repeated turning over of hose until dry to prevent mold. Carelessness in this procedure within a short time will play havoc with the best hose manufactured.

Inclines are not satisfactory for drying purposes, no matter how well built from a ventilating standpoint, as the air cannot circulate around all portions of the hose. After checking various methods, my conclusions are that the tower is the best method. This obviates the necessity of frequent handling, insures uniform and thorough drying and is always easily accessible for observation.

V. H. Steele, Chief, Billings, Mont.: We do not use hose racks or drying towers any more. Soiled hose is strung out on the concrete floor of the station house, washed with a garden hose and broom, if necessary. Two by two strips of wood laid crosswise of the hose permits circulation of air and proper drying. Hose when drying must be turned over at least once to dry top side perfectly.

Of course, the station floor should have proper drainage to carry off excess water. I have no criticism of this method except that the station is littered up with hose on the floor for some time, but if the station is large enough and the hose is properly laid out, we have no great inconvenience, nor is the hose unsightly when laid out in symmetrical rows.

The elimination of the unsightly hose drying tower makes for a much better looking and less costly fire station. The same thing may be said of the inclined drying racks along the wall.

The time was, of course, and some of us can still remember, when we had much more soiled hose than we have now, but with the coming of the paved street, the washing of hose has become a minor problem.

M. W. Lawton, Chief, Middletown, Conn.: We wash and sweep our hose on returning from a fire.

Some of our stations have towers to dry the hose and one station has a hose drying rack in the basement.

We find that we have better luck with the hose that is dried in the towers, as the hose that is dried on the rack has to be turned so many times to dry. It takes a great deal more time to dry with this method and does not seem to dry properly.

When new hose is purchased, we run water through it and give it a good washing out. It is then hung in the tower to dry.

Everett B. Wood, Chief, Plymouth, Mass: The Plymouth Fire Department has for years used racks to dry their hose. Our racks are similar to a ladder and are in banks of three each, about sixty feet in length, and are pitched so that no water can be left in the hose when put on the racks.

We have some hose in the department which is seventeen years old, and I think that in itself speaks well for racks to use in drying hose. The trouble that some departments have, I believe, is that the pitch on their racks is not enough to drain the water out of the hose, thereby a chemical action takes place and acid is formed from the sulphur in the rubber and the water left in the hose. This sulphuric acid will cause considerable damage when in contact with the cotton jacket of the hose.

Newton Lavery, Chief, Burlington, Vt.: We stretch our hose on a rack about fifty feet long which is pitched from the center, so the hose drains both ways. Aside from its being a convenient way to stretch hose, I would say that is not satisfactory. I believe the best way to dry hose is in a tower. In these mechanical days it would seem that an arrangement could be made whereby the wet hose could be attached to a hoist and drawn up in a tower to dry. The hose should be secured about one foot from the coupling, I believe.

The placing of wet hose on a rack to dry, even if the rack is constructed with openings in it, leaves a part of the bottomside of the wet hose in such a position that it does not dry as fast as the topside, which means that the outside jackets are kept wet a longer time.

We have tried both ways and I believe that the best method is the tower, not only for the hose, but also for the space it takes in fire houses if a rack is installed.

Taylor L. Barr, Chief, Winchester, Va.: Our method of drying hose is to stretch it out on the street after a fire, wash and scrub it thoroughly so that it will be free from any particles of dirt or gravel; then it is rolled and placed in racks.

We have found this to be a very satisfactory method and keeps the hose in a good state of preservation. We now have on hand hose that will stand 300 pounds shut-nozzle pressure after constant use since 1923. We contribute the life of the hose to the handling and care we have given it. Other methods of drying have been used, but the hose has rotted and given poor service.

C. K. Coltrane, Asst. Chief, Casper, Wyo.: We drain our hose and place it on inclined racks for drying. We find this method very satisfactory.

C. L. Downing, Chief, Grand Junction, Colo.: We use the hose tower for drying and storing fire hose and find it very satisfactory.

M. J. Scolatte, Chief, Iron Mountain, Mich.: We have a hose tower for drying hose, and find it very satisfactory.

E. A. Brumley, Chief, Greeley, Colo.: At present we have a slatted bottom hose rack about thirty-five feet long, holding about 800 feet of hose. This is not satisfactory because we have to fold the hose back, with the result that it does not drain properly.

I believe a hose tower would be much better, because you would get better drainage and better circulation around the hose.

Gordon G. Cushing, Chief, Rochester, N. H.: We use hose racks at our station and find them very satisfactory.

Napoleon Ayotte, Chief, Hibbing, Minn.: When hose is wet, we usually stretch

HERE IS THE PROBLEM

What method do you employ for drying hose?

Have you found it entirely satisfactory?

If not, what changes would you suggest?

it outside for some two or three hours and then put it up in the hose tower which is well ventilated. However, we don't hang hose in our tower by the couplings. We have six half-moon timbers twenty inches in diameter, so as to cause no sharp folding of the hose. The hose is pulled up and centered on these round timbers. We find this method very satisfactory and far better than hose racks. Couplings are not permitted to hang within two feet of lower floor.

C. E. Foster, Chief, Astoria, Ore.: We have towers to dry our hose. We hang the hose over a round pole with both ends down. Having both ends down, it makes it convenient to examine the couplings.

Bacil A. Roberts, Chief, Inglewood, Calif.: This Department has in use both the inside hose tower and an outside drying tower. We find that due to our climatic conditions that both prove satisfactory.

B. L. Warlick, Chief, Jackson, Tenn.: We have an enclosed hose tower and an outside hose rack which give fair results. I would prefer a hose rack in the engine room, provided the room were not too hot.

T. P. Treadwell, Chief, Fort Collins, Colo.: We use a metal rack with steam pipes under each shelf. The rack is twenty-eight .feet .long .with .four shelves with a total capacity of 1,400 feet of 2½-inch double jacket hose.

I don't think it is what one would term entirely satisfactory as the heat has a tendency to loosen the rubber tube, and also dry it too much.

We have used our portal smoke ejector at one end of the rack, with the steam turned on but a very little. This does a fast and good job of drying the hose.

I would suggest the use of a hose dryer made for that purpose alone, which would have the approval of fire hose manufacturers. It is necessary to give the hose the right treatment in drying to prolong its use in the fire service.

Elmer H. Fairbert, Chief, Beloit, Wis.: We have a hose tower which is about forty feet high and eight feet square. At the top we have four by four rounded rods eighteen inches long and eighteen inches apart.

We have a rope with a pulley and clevis. The hose is brought up in the middle, with the couplings hanging down. This allows four lengths to each pin, and allows proper draining.

We have had this type of tower for twenty-two years, and find it very satisfactory.

Richard Holme, Chief, Grosse Pointe Park, Mich.: Our method of drying hose is by tower. We have had previous experience with racks and would never consider them again. We find our present method more convenient and more satisfactory.

John C. Long, Chief, Danville, Va.: We use a hose tower for drying our hose with a separate hook for each section. This method has proven very satisfactory.

Linwood J. Emery, Chief, Sanford, Me.: We use a hose rack for drying hose. It has proven satisfactory. However, I believe the tower is the only good method of drying hose as all the water drains out leaving no surplus to convert into acid, which does happen if the hose is not completely dry when returned to hose room or repacked in to cart. Seepage from water left in the hose will drain through the couplings, and this converted to acid, drips on the jacket of other hose and causes acid burns in it. This, needless to say, is expensive.

Nelson P. Jensen, Chief, Austin, Minn.: We use the open frame rack with very fine results.

W. T. McKinney, Chief, Rome, Ga.: In drying our hose we use a hose rack made of steel with wooden sleepers, or cross-supports, on which the hose rests. The rack has a slope of one inch in each foot and the hose is placed on this with an air space between each section. The hose drying room is long and narrow and near the center of the building where no sunlight or artificial heat reaches it. We lay our dirty hose on the floor of the drying room, wash it with plain water and then place it on the rack. No changes are anticipated.

R. M. Milan, Chief, Huntsville, Ala.: We use a sloping rack which is located in a cool and semi-dark place for drying our hose. This has been found to be entirely satisfactory.

J. M. Andrews, Chief, Sherman, Tex.: We dry our hose on racks. This proven very satisfactory. We use treated hose which does not require much drying. Untreated hose gave us trouble as it would mildew in damp weather. The treated hose does not mildew.

E. C. Haley, Chief, Ada, Okla.: We have a section in our drill tower where there is no artificial heat. The hose is stretched lengthwise by block until it is thoroughly dry. This method has proven very satisfactory.

Frank Dews, Chief, Chickasha, Okla.: We always wash, sweep and clean hose after every fire, or use of any kind. It is then hung in the hose tower to dry. We also change all hose in the trucks once every thirty days.

We have never had any mildew hose, in fact we have Eureka hose bought in 1928 still in service.

E. F. Lester, Chief, Athens, Ga.: We have a long brick drive where we wash our hose, then stretch it to dry. After the hose has had enough sun, we move it into the house where we let it finish drying so as not to hurt the rubber.

I find that the way we dry our hose is the best method I have seen anywhere.

J. Thomas Bennett, Chief, Ansonia, Conn.: The Ansonia Fire Department is composed of four companies, two of which use racks for drying hose, and two which have towers. Of the two, I personally prefer the tower. Of course, there is considerable labor attached to hoisting 2½-inch lines up the tower, after washing them off, but we can hang twenty-five or thirty lengths up at a time, and they can stay stretched out full length until needed. In my estimation the life of the hose is preserved much longer than by using a rack, where dry hose is rolled doughnut fashion to make room for more hose on the rack. When hose is rolled in this manner, I have the men uncoil these lengths occasionally. I believe that it helps preserve the rubber lining.

W. C. Walker, Chief, Brownsville, Tex.: We have a steel hose drying tower to hold forty sections of 2½-inch hose of fifty feet in length. We find this method very satisfactory.

C. H. Page, Chief, Charlottesville, Va.: We lay hose on cement yard, wash both sides, and then place on racks to dry.

Thomas Finnegan, Chief, Helena, Mont.: We have a drying rack built on the wall of the basement with two twenty-four foot sections at a ten percent drop. Each section is three feet wide with 1½-inch slats set three inches apart with an eighteen inch drop at bottom of upper section. This gives us ample space to dry 600 feet of hose at one filling and allows good air circulation. We find it very satisfactory.

Donald J. Rayburn, Chief, El Dorado, Kans.: We have a hose tower to dry hose and have considered it very good for that purpose, but it takes too much time to dry the hose, especially during the cold weather.

Frank Pulaski, Chief, Boise, Ida.: We have a sixty-five foot tower. The hose is washed and hung by lugs on the male couplings and thoroughly dried. It is then rolled and set on edge in racks. I find this quite satisfactory as rolling keeps the air from oxidizing the rubber.

S. E. Hanna, Chief, Coffeyville, Kans.: We have a hose tower with an electric hoist. Immediately after a fire we wash the hose and raise it by hoist into the tower. As soon as the hose is thoroughly dry, we roll it ready for reloading. In the winter the heat from a gas stove helps in drying the hose.

We have been using this method for several years and have found it satisfactory.

T. M. Cook, Chief, Valdosta, Ga.: We employ the hose drain and drying rack. The drain is elevated, and has a metal floor. Dirty hose is washed, then placed on edge in drying rack. Small wooden pegs are used to hold the hose in place. In this position air passes freely through and all around each section. Our drain is built within the building and the hose is never exposed to the sun except when it is being used. We all know that heat is not good for rubber goods.

We think this method of caring for fire hose is the best.

M. M. Lingeman, Chief, Grand Island, Neb.: All our hose is flushed and tested three times a year and always cleaned and hung after each time it is used.

We have some twenty-five year old hose that still stands the two hundred pound test.

HERE IS THE PROBLEM FOR THE NEXT ISSUE

With the adoption of the dial telephone, many small fire departments have experienced difficulty in sounding a fire alarm, for there is no all-night attendant to sound the siren, or have it sounded.

Have you experienced this trouble?

Have you found any solution to it? If so, how?

Among the Fire Fans

By Otis Smith

TWENTY-SEVEN members of the Boston Sparks Association completed the standard First Aid course of instruction as prescribed by the American National Red Cross. They were awarded certificates by Charles F. Wolcott, Chairman of the local chapter. The course of instruction was given by Captain George Friel, Drillmaster of the Cambridge Fire Department. This group now conducts periodic drills so that the practices they have learned will not be forgotten. It is planned to continue on with the courses and to form a Disaster Unit with full equipment to meet any emergency.

At a recent social meeting, an old fire picture, "The Third Alarm," was shown. One of the Sparks obtained the reels from the dusty files of a downtown film exchange. The picture showed the trials and hard feelings of the older firemen at the time of the change-over from horse drawn to motor apparatus. To many of the firemen present at the meeting, the film brought back many memories and prompted them to relate some of the experiences to the gathering.

Four officers of the Sparks Association attended the Fire Chief's Convention in Dixville Notch, N. H., recently. They brought back many interesting accounts of the sessions.

At the time of this writing, the conscription bill is still in debate. When it passes, many fire fan clubs are sure to lose some of their best men. This writer comes under the first draft classification as outlined at the present time. So we don't know for how much longer we will be able to bat out "Among the Fire Fans" on the old typewriter.

Here are some fans who are interested in the horse drawn type of fire apparatus. First is Harvey H. Larrabee, 319 S. Grinnell St., Jackson, Mich. He does not have any prints to trade at the present time, but would like to hear from some who have a few extra prints. Another fan is John Weisberger, Editorial Dept., N. Y. Journal American, 6 Centre Market Place, New York City. . . . Tom Corvallis, Fire Dept., Corvallis, Oregon, is interested in apparatus models . . . Still another model maker is Nicholas DiRaddo, 609 William St., Camden, N. J. . . . Art Cline, Washington, D. C., is now married. His wife is also a fire fan. This last from Jimmie Jackson, the old model maker of Oswego, N. Y. Jimmie's address in Oswego is 147 E. Cayuga St.

Members of Box 12 Associates, Detroit, mourn the passing of Phil Boorn. Mr. Boorn was an active and enthusiastic member of the Associates. He joined the club in 1930 and was later commercially transferred to Chicago. He is the fourth member of the Box 12 Associates to pass on.

Thanks to E. E. Douglass of 33 Walnut St., Medford, Mass., for the picture of Boston Engine 50, and also the picture of the Ayer, Mass., fire station. . . . Joseph W. Orendorf, Jr., and his wife visited Chicago recently. While there, Captain Collins of Ladder 1 had a pumper, truck, and smoke ejector driven outside to permit picture taking. Mr. Orendorf was kind enough to send this column copies of the prints. Also on hand are two prints of the German-made aerial ladder in use at Gary, Indiana. Mr. Orendorf's address is 4849 Maplewood Ave., Detroit, Mich.

A recent visitor to Baltimore was Wm. Patterson, Pittsburgh. In company with the writer and Leslie Keller, Mr. Patterson looked over some of Baltimore's equipment. At the department shop he saw the new No. 2 Truck, also several pumpers and the fireboat Cataract, being reconditioned. Then for a drive to No. 6 Engine for a glance at one of Baltimore's newest Seagrave pumpers. While chatting with Battalion Chief Dolle of the Second District (his quarters are at No. 6 Engine) the gong struck Box 245. The trio arrived at the fire in time to see how Baltimore operates at a booster-line job.

From the Phoenician News, publication of the San Francisco Phoenix Society, we note that the new budget of the San Francisco Fire Department is $105,013.00. This amount will enable the department to purchase much needed equipment during the fiscal year.

Fire fan clubs and individuals in the New England area may find it worthwhile to contact Mr. John W. Wolfenden, Attleboro, Mass. Mr. Wolfenden is President of the Box 9 Association of Attleboro. Box 9 is made up of fire enthusiasts as well as firemen, and has a direct connection with the police department through its fire police and patrol. Mr. Wolfenden would like to see the clubs in the New England area cooperating as a single unit.

Two members of the Fire Bell Club, New York, attended the Fire Chief's Convention in Dixville Notch, N. H. They were Harry Pusch, President of the club, and Gordon Mullins, Press Representative, New York State Fire Chiefs Association. Gordon also attended the convention of the Montgomery County (Penn.) Firemen's Association, held at Willow Grove recently. The Willow Grove and Lansdowne sections are the old stamping grounds of Leslie Keller, who now keeps tabs on the Baltimore Fire Department.

Johnnie Weisberger, New York City, returned from a recent vacation in Florida with a number of photos of various types of fire equipment he encountered on the way.

He is interested in horse-drawn apparatus and would appreciate hearing from model makers.

Also heard from were Robert Upton, 25 Park St., Montclair, N. J., and Ed Sprangers, 2228 W. Oakdale St., Philadelphia Pa. . . . The writer would like to hear from fans in the Baltimore area. Also those who like to take, trade, or simply look at photos on fire subjects. The address is 319 Gwynn Ave., or telephone Edmondson 1342-J.

A. R. Brown Dead

A. R. Brown, well known in the manufacturing branch of the fire fighting field, died at his home on July 14, following a long illness. He was sixty-seven years of age.

Mr. Brown started with the S. F. Hayward Company in 1889. This company was an agent for Babcock fire extinguishers and fire apparatus. It was later taken over by the American-La France Fire Engine Company. Mr. Brown remained in the capacity of Sales Manager for Fire Department Supplies

The Late A. R. Brown

for the New York Division. He held this position until 1917, when he resigned to become the general Eastern Distributor for O. J. Childs Company, of Utica, N. Y., manufacturers of fire apparatus. This company later became known as the Foamite-Childs Corporation.

In 1927 this company merged with the American-LaFrance, and Mr. Brown was made General Sales Director and Assistant to the Vice-President of the American-LaFrance and Foamite Corporation. Later he became District Manager for the New York area. In 1932 he resigned from American-La France and entered business for himself selling Fire Department appliances and specialties in New York City.

He is survived by his widow, a daughter and a son, Ira Brown, who is a Lieutenant in the Baldwin, L. I., Fire Department.

Chief Mader Has Long Service Record

Chief W. F. Mader is believed to be the oldest Chief in Ohio in point of service. He has just completed fifty-two years as Chief of the Bucyrus, Ohio, Fire Department.

He was appointed to this post in 1888 and has been the only Chief that this city has ever had. Firemen have been called to more than 1,100 fires in the city since Mader became Chief and he has supervised their work at almost all the fires. In addition to his duties as Chief, Mader has found time to assist in many civic projects.

Boat-Racing Chief Honored

Chief Clayton Bishop of Onset, Mass., Fire Department, recent winner of the Albany-to-New York Outboard Motor Boat Race, was feted at a banquet at East Wareham, Mass., by nearly 200 admirers. Bishop was presented with a complete movie outfit and a cigarette lighter.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Discharge from Distributors

To the Editor:

1. When using a Bresnan distributor, how do you find the discharge and nozzle pressure? Do you combine the orifices or find for each one separately? Would you work one problem for me?

2. In the last Lieutenants' examination in the New York Fire Department, ten problems were given which you answered in your January, 1939, issue. In your answer to Stretch "A" you use fifty pounds on a ½-inch nozzle. In Stretch "B" you use fifty pounds on a one-inch nozzle. In Stretch "C" you use fifty pounds on a one-inch nozzle.

Why is the nozzle pressure the same on a half-inch nozzle as it is on a nozzle which is ½ inch larger, namely a one-inch nozzle? In the official civil service answer which I have, the assumed nozzle pressure was 28 pounds. I do not know how they arrived at that figure. It seems that fifty pounds, or even forty pounds, would cause the breaking of the stream on a ½-inch nozzle and also on a one-inch nozzle. Is there any reason or method whereby you arrived at using these pressures as you have used on all the stretches in the January issue?

In the following stretches, what nozzle pressure would you assume and why would you select these pressures:

1. 100 ft. of 2½-inch hose, 1⅝-inch nozzle.
2. 300 ft. of 2½-inch hose, 1½-inch nozzle.
3. 500 ft. of 2½-inch hose, 1¼-inch nozzle.
4. 1,000 ft. of 2½-inch hose, 1⅛-inch nozzle.
5. 1,500 ft. of 2½-inch hose, 1-inch nozzle.
6. 2,000 ft. of 2½-inch hose, 1-inch nozzle.
7. 2,500 ft. of 2½-inch hose, ⅞-inch nozzle.
8. 3,000 ft. of 2½-inch hose, ⅞-inch nozzle.
9. 4,000 ft. of 2½-inch hose, ¾-inch nozzle.
10. 4,000 ft. of 2½-inch hose, ½-inch nozzle.

Is there any set rule in which nozzle pressures can be assumed with any degree of standardization. What I mean is, is there any way in which if I selected an assumed nozzle pressure for a given nozzle that the answer given officially could also assume that pressure or near that pressure?

3. In your Simplified Hydraulic Book on relaying lines you give a method of finding where to place the second engine in a stretch and you say that when pumping at 120 pounds, one-half the distance; at 200 pounds, three-quarters the distance and at 250 pounds at four-fifths of the distance. Then, how do you know what engine pressure you are going to use before you work out the problem which you cannot do by the above method unless you take an engine pressure. For example, where would you place the second engine in a 2,000-foot stretch with two 1,000-gallon pumpers. You do not know the engine pressure, so how can you select one-half the distance, or three-quarters the distance, etc. R. S.

Answer: When using a Bresnan distributor, the discharge will be approximately one-half that which you would secure from a nozzle of equal discharge area operating at a given pressure.

For one type of Bresnan distributor, the several discharge ports are equivalent in area to a 1¾-inch nozzle.

For finding engine or nozzle pressures, when a Bresnan distributor is used on 2½-inch hose, the usual formula for engine pressure or nozzle pressure is employed, using the value of 3.628 for K. As an example, assume the engine pressure is 200 pounds and it is pumping through 200 feet of 2½-inch hose to which a Bresnan distributor is attached.

$$\text{Nozzle pressure} = 200 \div (1.1 + 3.628 \times 4)$$
$$= 200 \div 15.612$$
$$= 12.8 \text{ pounds nozzle pressure approximately}$$

Discharge will be:

$$\text{Discharge} = 29.7 \times d \times d \times \sqrt{P}$$
$$= 29.7 \times 1\tfrac{3}{4} \times 1\tfrac{3}{4} \times \sqrt{12.8}$$
$$= 29.7 \times 1.75 \times 1.75 \times 3.58$$
$$= 325.6 \text{ gallons per minute}$$

Had a 1¾-inch plain nozzle been used in the layout, the nozzle pressure would be as follows:

N. P. $200 \div (1.1 + .907 \times 4)$, where .907 is the value of K for 1¾-inch nozzle on 2½-inch hose.

$$\text{N. P.} = 200 \div 4.728$$
$$= 42.3 \text{ pounds.}$$

$$\text{Discharge } 29.7 \times 1.75 \times 1.75 \times 42.3$$
$$29.7 \times 1.75 \times 1.75 \times 6.5$$

591 gallons per minute approximately

Note that the discharge from a 1¾-inch nozzle is approximately equal to twice the discharge from the Bresnan distributor.

It should be pointed out that the nozzle pressure in the distributor might be greater than determined by the formula, using 3.628 as the value of K. However, it is the flow from the distributor which determines the friction loss from the engine to the distributor and if the flow is approximately correct, there will be no serious error in the solution of the problem if the pressure within the distributor is a few pounds off either way.

That is why the value of 3.628 is used for K instead of .907, such as would be employed on the plain nozzle.

If the pressure at the Bresnan distributor were known, it would be a simple matter to figure the friction loss in the hose and then the engine pressure. But when solving problems involving a layout of hose on which the distributor is attached, without knowing the discharge or the pressure, it is best to solve it with one of the formulas we know, making the necessary corrections in the value of K as shown above. Then when the pressure at the distributor is calculated, we get a flow which is approximately correct without first having to solve for what the flow would be through a plain nozzle and divide by two to get the approximate flow through the distributor.

Answer 2: The same pressure was assumed at each of the three layouts so that a direct comparison could be made. Reference to figures prepared by John R. Freeman, pioneer in hydraulics of fire streams, shows that at 80 pounds pressure there is no serious break in a stream even with nozzles as small as ¾ inch.

Different values might have been selected for nozzles of different sizes, but too much latitude in answering the questions might be taken if such a procedure were followed.

The National Board of Fire Underwriters sets forth in "Fire Engine Tests and Fire Stream Tables," the following figures for effective pressures:

For nozzles of 1⅛ to 1¼-inch diameter, 40 to 60 pounds nozzle pressure.

For nozzles 1½-inch and over, 60 to 90 pounds.

While the Underwriters do not give desirable pressure for nozzles under 1⅛-inch diameter, we might add that for nozzles from ½ to 1-inch diameter, pressures of from 25 to 50 pounds would be fully satisfactory.

There is no set rule applied to the above for estimating desirable nozzle pressures.

Answer 3: In deciding upon the placement of engines in relay lines, certain assumptions would have to be made.

For example, if a 1-inch nozzle were being employed, a pressure at the nozzle of 40 pounds might be assumed. This would give a flow of 187 gallons a minute.

If the line were 2,000 feet long, the friction loss would amount to 10 × 20,

or 200 pounds (the friction loss for 187 gallons per minute being approximately 10 pounds per hundred feet).

In this case an engine pressure of 200 plus 40, or 240 pounds would be required.

If two engines were to be used, each would be pumping at around 120 pounds, and the placement of the engines would be on that basis.

If a 1⅛-inch nozzle at 50 pounds were being used on the line, the flow would be 265 gallons per minute and the friction loss 17 pounds per hundred feet. For 2,000 feet the friction loss would be 340 pounds plus 50 pounds nozzle pressure, which would give 390 pounds at the engine.

If two engines were being employed, they would each be operating at around 200 pounds pressure, and the placement of the engines would be on that basis.

If a 1¼-inch nozzle at 50 pounds were being used, the discharge would be 367 gallons per minute, and the friction loss, 30 pounds per hundred feet. For 2,000 feet, the friction loss would be 600 pounds plus 50 pounds nozzle pressure, or 650 pounds engine pressure.

In this case, the engines would be operating at around 300 pounds each, and if the engines were capable of developing a pressure of from 300 to 350 pounds, placement of the line would be made on the basis of such pressures.

Two Engines Supplying Deck Pipe

To the Editor:

Will you please solve the following:

1—Two engines pumping into a deck pipe; Engine 1 pumping through 1,000 feet of 2½-inch hose; Engine 2 pumping through 500 feet of 2½-inch hose; 1½-inch tip on deck pipe, 50 pounds pressure at nozzle. Find each engine pressure.

2—Two engines pumping into a deck pipe; Engine 1 pumping through 900 feet of 2½-inch hose; Engine 2 pumping through 450 feet of 2½-inch hose; 1½-inch tip on deck pipe and delivering 500 g.p.m. Find each engine pressure.

3—What action takes place with a centrifugal pump rated at 1,000 g.p.m. at 160 pounds pressure, if working from a hydrant with 70 pounds pressure? Does one have to operate the pumps at 160 plus the 70 pounds on hydrant, or just the difference between 160 and 70 pounds to get the full 1,000 g.p.m.? What effect would this have on the r.p.m., if any?

J. J. S.

Answer 1: Where two engines are pumping into a deck gun and each is operating through a line of hose of different length, and each at a different engine pressure, no solution of the problem can be found. Either engine may operate under a wide variety of pressures, while the other operates through a corresponding range. Unless either one of the engine pressures is given, the other cannot be solved.

Answer 2: Where two engines are pumping into a deck gun, each operating through a different stretch of hose, and each at a different engine pressure, the pressures at the engine cannot be solved. In this particular problem the gallons per minute from the nozzle is given and the nozzle pressure can be found, however. The method for finding the nozzle pressure is as follows:

$$\text{Discharge} = 29.7 \times d^2 \times \sqrt{P}$$

Place in this formula the value for discharge, which we have, and we then have the equation:

$$500 = 29.7 \times 1.5 \times 1.5 \times \sqrt{P}$$

$$500 \div 66.825 = \sqrt{P}$$

$$7.48 = \sqrt{P}$$

$$P = 55.95, \text{ or } 56 \text{ pounds}$$

The balance of the problem is similar to Number 1, which does not offer any method of solution for engine pressure.

Answer 3: If a pumper rated at 1,000 gallons a minute at 160 pounds is working from a hydrant with 70 pounds pressure, the engine has to deliver 70 pounds less pressure than the 160 to get the 160 pounds on the discharge side.

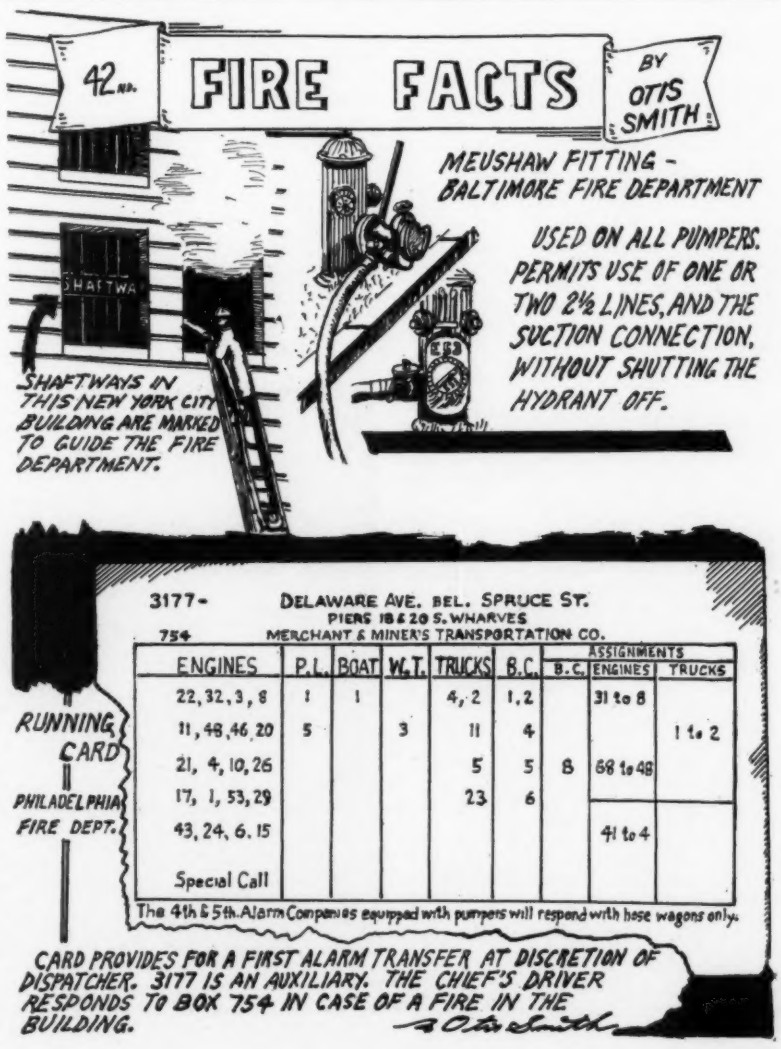
While the gauge will show 160 pounds discharge pressure, the pump will have to be developing only 160 — 70, or 90 pounds pressure. Of course, at this pressure the pump would be capable of delivering more water than 1,000 gallons per minute.

Volunteers Plan Training School

A large attendance was present at the quarterly meeting of the Greene County Volunteer Firemen's Association which was held in the Catskill High School, Catskill, N. Y. At this meeting plans and preparations were discussed and outlined for the training school which will consist of eight lectures based on elementary tactics and strategy of fire fighting, laws pertinent to volunteer firemanic activities, and like subjects. Diplomas will be issued by the University of the State of New York to those in attendance at the school who satisfactorily pass the examination which will be conducted at the termination of the course.

Columbia County Has Needed Ambulances

Three fully equipped ambulances are now available to the citizens of Columbia County. The equipment is maintained and operated by the volunteer firemen of the county. The county is without any institutional ambulance service other than that provided by the volunteers.


42nd.
FIRE FACTS
BY OTIS SMITH
MEUSHAW FITTING - BALTIMORE FIRE DEPARTMENT
USED ON ALL PUMPERS. PERMITS USE OF ONE OR TWO 2½ LINES, AND THE SUCTION CONNECTION, WITHOUT SHUTTING THE HYDRANT OFF.
SHAFTWAYS IN THIS NEW YORK CITY BUILDING ARE MARKED TO GUIDE THE FIRE DEPARTMENT.
3177- DELAWARE AVE. BEL. SPRUCE ST.
PIERS 18 & 20 S. WHARVES
754 MERCHANT & MINER'S TRANSPORTATION CO.
ENGINES | P.L. | BOAT | W.T. | TRUCKS | B.C. | ASSIGNMENTS B.C. | ENGINES | TRUCKS
22, 32, 3, 8 | 1 | 1 | | 4, 2 | 1, 2 | | 31 to 8 |
11, 48, 46, 20 | 5 | | 3 | 11 | 4 | | | 1 to 2
21, 4, 10, 26 | | | | 5 | 5 | 8 | 68 to 48 |
17, 1, 53, 29 | | | | 23 | 6 | | |
43, 24, 6, 15 | | | | | | | 41 to 4 |
Special Call
The 4th & 5th Alarm Companies equipped with pumpers will respond with hose wagons only.
RUNNING CARD
PHILADELPHIA FIRE DEPT.
CARD PROVIDES FOR A FIRST ALARM TRANSFER AT DISCRETION OF DISPATCHER. 3177 IS AN AUXILIARY. THE CHIEF'S DRIVER RESPONDS TO BOX 754 IN CASE OF A FIRE IN THE BUILDING.
Otis Smith

A Rescue Assignment in Chicago
Firemen had a busy time rescuing persons from the apartment house fire in Chicago, Ill., which occurred on the night of July 8. In this picture firemen are shown carrying a woman down a ladder as she was rescued from the third floor of the blazing building.

Lumber Fire Adds Heat to Heat Wave

While the mercury stood at an official ninety-five degrees, Chicago firemen on July 23 battled a lumber yard fire that licked through hot, tinder-dry timbers in the 19-acre plant of the Harris Bros. Company, 1349 W. Thirty-fifth St.

Firemen under the personal direction of Fire Commissioner Michael J. Corrigan and Second Deputy Chief Fire Marshal Joseph Mackey fought for more than four hours to subdue the flames which spread so fast that more than forty employees did not have time enough to remove their personal automobiles from the yard. A 5-11 and two special calls for five engines each brought 33 engine companies, the fireboat Fred Busse, 5 trucks, 3 squads, 3 high-pressure wagons, a water-tower, an ambulance and a light wagon to the scene shortly after 4 p. m.

A hot wind from the southwest fanned the flames and threatened the entire industrial district which borders on the stockyards, the scene of the 1934 holocaust. As during the stockyards fire, low water pressure, caused by lack of large mains and the many open hydrants used as shower baths by a sun-baked citizenry, handicapped the firemen and the only effective stream was one from the Fireboat Busse which pumped from the Chicago river, three blocks east of the fire. At one point, the heat became so terrific that a shavings shute in the main plant building exploded.

Many firemen collapsed from the terrific heat and were treated on the scene. Lieut. George Cordes of Engine 109 and an unindentified fire fan, already handicapped by a broken arm and who severed an artery in his good arm when he fell through a pane of glass while helping drag hose, were taken to a nearby hospital. Lieut. Cordes suffered from sunstroke and exhaustion.

All 465 employees of the company were driven from the main building and the huge yard by the fire which did damage estimated by company officials at about $250,000. The fire apparently started in a small shed at the west side of the huge yard. Fire Attorney Earl Downes immediately launched an investigation. Quick work by a train crew in the vicinity enabled them to remove all but one of a dozen box cars from a spur in the yard.

BOB GREENOCK

WHAT'S BURNING

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of July, 1940. These figures, compiled from the telegraphic reports, are based on estimates made at the time, and are subject to later investigations and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Month Ending July 31	Loss in Thousands of Dollars
Morehead, Ky.—Caskey garage and adj. property	60
Bend, Ore.—Deschutes Farmers' Whse. and factory of Oregon Trail Mfg. Co., destroyed	60
Crawfordsville, Ind.—Plant of Hoosier Crown Corp., damaged	50
Edmonton, Alta.—Whses. of Maple Leaf Petroleums and Wyman & Cox, destroyed	65
Nelson, B. C.—Factory of Nelson Sash & Door Co., destroyed	65
Cicero, Ill.—Property of J. M. Junge Roofing Co.	50
Parker Dam, Ariz.—Mach. shop and whses. of U. S. Reclamation Service	80
Fakenham, Ont.—Business and residential property	60
Clarksburg, Cal.—High school building destroyed	65
Seaford, Del.—Property of Hastings-Eskridge Lumber Co.	50
South Bend, Ind.—Salvage plant of South Bend Iron & Metal Co.	50
Worcester, Mass.—Market structure of Brockerlman Bros., damaged	80
Haskell, Tex.—High school building and auditorium	50
Pascagoula, Miss.—Wiggins Building—store and office bldg.	50
Albany, Ore.—Albany cannery and plant of C. J. Lilly Seed Co.	200
Edmonton, Tex.—Three warehouses damaged	80
Oxnard, Cal.—Refinery and asphalt plant of Vaca Oil Exploration Co., destroyed	170
Harrisonburg, Va.—Mill of Rockingham Feeds, Inc., damaged	50
San Francisco, Cal.—Business and apt. property, Harrison and Treat Ave.	50
Markland, Ind.—Plant and equipment of Southern Indiana Light & Power Corp., near here	50
Hutchinson, Kan.—Schneider service station and garage destroyed	65
Cincinnati, Ohio—Holy Family Home damaged	50
Redding, Cal.—Business property at California & Placer Sts.	50
Wilmington, Del.—Plant of Diamond Ice & Coal Co., damaged	65
Cushing, Okla.—American Theatre destroyed, adj. property damaged	50
Chicago, Ill.—Lumber yard of Harris Bros. Lumber Co., damaged	400
Hollywood, Fla.—Great Southern Hotel damaged	50
McCall, Idaho—Sawmill of Brown Tie and Lumber Co., destroyed	80
Bayonne, N. J.—Eight barges and tugboat at McAllister Bros. ship repair yard	210
Bay City, Mich.—Plant of Woodcraft Corp., damaged	80
Lawton, Okla.—Wolverton bldg., destroyed.	50
Chicago, Ill.—Automobiles of 50 employes of Harris Bros. Co., destroyed	400
Palatka, Fla.—Shops of Barnett Iron Works, damaged	50
Webster Groves, Mo.—Two units of Holekamp Lumber Co., destroyed	60
Red Bank, N. J.—Strand Restaurant and adj. property, Broad St.	65
Newhall, Cal.—Oil well, rig and all buildings destroyed	70
Noblesville, Ind.—Plant of Capital Furniture Co., owned by Sears Roebuck	100
W. Allenhurst, N. J.—Dwelling of Samuel Katz damaged	50
Fresno, Cal.—Plant of San Joaquin Baking Co., damaged	80
Panama City, Fla.—Eight oil storage tanks owned by Sunny State Oil Co.	170

Twelve Firemen Hurt in Large Fire at Seattle, Wash.
All available apparatus was called out to fight a fire at the deserted Balcom Canal Lumber Company plant on the Lake Washington Ship Canal. Twelve firemen were hurt, three seriously. Fire spread rapidly through the dry lumber, and the department worked hard to keep the blaze from spreading to nearby dwellings.

Perrysburg, Ohio—Horton Hall, owned by J. Halsted	80
Niles, Ohio—Plant of Niles Fire Brick Co., damaged	50
Kansas City, Mo.—Property on Bryce B. Smith farm damaged	50
Camden, N. J.—Plant of R. M. Hollingshead Co., and adj. property	600
San Francisco, Cal.—Argonne Hotel and adj. property	50
Detroit, Mich.—Plant of Michigan Macaroni Mfg. Co., destroyed	80

June Fire Losses Were $19,506,000

The National Board of Fire Underwriters estimated the losses due to fires in the United States to be $19,506,000 for the month of June. This total is sixteen per cent less than that for May and nineteen per cent less than that for June in 1939. The six months' total of $170,069,480 is three per cent more than that of 1939.

A Childhood Dream Comes True

The childhood hope that the old school would burn down is no longer a hope but a fact in Ardley Park, Pa. The fire which destroyed most of the Ardley Park High School was discovered by a policeman doing patrol duty in his police car. He turned in an alarm which was followed by a general alarm soon after the first company arrived. Additional help had to be called in from various parts of the county. Many of the units pumped water from Crum Creek while others used hydrants that were available in the immediate surrounding area.

An aerial ladder was used in directing the streams from the ground throughout the long battle. In addition, its use proved to be a lifesaver in that the First Assistant Chief of the Swarthmore company, who was stationed on the ladder, was able to warn other firemen to get the ladders clear when he saw the roof start to buckle.

Firemen under the leadership of Chief T. Turner fought the fire for four hours before they finally had it subdued. The main section of the building was burned out from roof to basement. Only a small wing housing the combination auditorium and gymnasium escaped the fire.

The Midnight Alarm to Be Enacted

Believing for some time that the speed contests and other tournament events are on their way out, and that the residents and merchants of the community were a little opposed to the idea of being asked to support many events during the year, the members of the Freeport, L. I., Volunteer Fire Department are endeavoring to present something radically different this year.

Following the annual parade and inspection of the uniformed force by the Mayor, and members of the Board of Trustees, they will present a pageant entitled "The Midnight Alarm." The inspection and pageant will all take place at the Municipal Stadium, under floodlights, September 11th.

On the Stadium grounds a street scene, going back to the kerosene and gas light era, will be erected. The central motif of this scene will be a drill tower, the only one owned and used by a Volunteer Fire Department on Long Island.

In this setting the members of the local department will try and depict for the audience the evolution or "march of time" of the volunteers. Going back to the very earliest days, when the only apparatus was the buckets and hand pumps, and the fire companies solicited the home owners to sell them fire protection, the various changes will be shown using old apparatus and in costumes of the period. Many scenes will be presented, some of an amusing nature. The ancient hand-drawn rigs will be offered for inspection, followed by the horse drawn wagons, and so on up to the modern motor apparatus. Ladder and hose evolutions will also be included as part of the program.

As a final scene, the Stadium will be darkened, the building "set" on fire, and the patrolman on the beat will turn in "The Midnight Alarm." The audience will then get an idea of how the volunteers respond and go into action in the saving of lives and extinguishing fires.

This is to be a 100% Freeport show. All the Instructors and performers are members of the Freeport Volunteer Fire Department.

The department has the full cooperation of the Mayor and the members of the Village Board of Trustees. The Chiefs of the many Fire Departments surrounding Freeport are also cooperating to the fullest extent in loaning extra equpipment, such as scaling ladders. The entire department will be put out of service during the show and will be covered up by seven companies drawn from nearby communities, who have consented willingly to send apparatus.

Fighting a $10,000 Blaze in Cortland, N. Y.
Apparatus had to be rushed from the nearby town of Homer, N. Y., to aid the Cortland Firemen in extinguishing this blaze which destroyed the building. The pumping machine of the Cortland Fire Department was undergoing repairs at a factory.

Firemen Vainly Battling the Ridley Park High School Fire
Assistant Chief Harry Hanby of the Swarthmore Company is seen at his post atop the Pirsch Aerial Ladder, where he effectively directed fire streams and the removal of ladders before the roof caved in.

International Municipal Signal Association to Meet

The 45th Annual Meeting of the International Municipal Signal Association will be held at the Roosevelt Hotel, Jacksonville, Fla., October 14-17. The technical program will cover every phase of municipal signaling work, municipal fire alarms, police telegraph, traffic signals, radio communication and other related topics. There will be exhibits and demonstrations by leading manufacturers of the latest signaling and electrical equipment used in this field. A well balanced program of entertainment is being planned to insure an enjoyable time for all.

Our inquiring reporter overhauls the firemanic news of the day

Light in Tree "Stumps" Braves

From J. Roger Miller, Lancaster (Pa.) we get a newsclipping with masthead of Lancaster Journal to prove its source, which tells about a red light scare which all came about when a motorist in the vicinity of Groffdale (Pa.) on a Thursday night discovered a flickering red light high up in a huge oak tree. He stopped at home of S. J. Harsh, in Bareville (Pa.) to report what he thought was a fire. Harsh notified Noah H. Groff, Bareville fire chief who, with Sec'y S. R. Myer of the Bareville vamps, investigated and located a red lantern in the tree fully 60 ft. above ground, on farm of Weaver Shirk. Messrs Shirk, the motorist and Mr. Harsh, as well as excited onlookers, were all unable to account for presence of the red light. Nobody ventured to climb the tree and the next morning the "false alarm" had vanished as mysteriously as it came.

Braves Set Blaze Which Brings Drought!

We're indebted to Albert W. Barris, Pittsfield (Mass.) for this'un. Seems that for part of July, the town of Hinsdals (Mass.) was without water as result of a fire started by firemen. The Brothers were helping raze an old church and barber shop on "Main St." and the night being calm, it was decided to hasten the job by burning the remaining wood. So a tractor pushed much of it toward the river and it was "sot afire". When the mass failed to burn fast enough gasoline was used as a "primer"—result an explosion that rocked the town, stunning several people and knocking a fireman to the ground, dislodging his upper false plate and cutting his lip. Flames leaped skyward and, despite rainy downpour, required the use of two streams to protect surrounding property. Climax came when, soon after water was started, main burst and the vamps hadda take suction in a nearby river before flames were extinguished. While town worked to restore water supply, checkup of damages showed that Wm. Collins, a fireman had a broken leg from falling over a hose as well as the unidentified Brother whose false teeth "bit himself" on the lower lip.

Hirsuit Hobby Hangs Fire

Richmond (Va.) firemen, according to our Iowa Contrib' have had a hobby for more than 60 years of trimming poor children's hair, free. Recently a traveling representative of a barber's union registered a complaint, claiming that the firemen were "violating the sanitary provisions of a city ordnance" and therefore must cease and desist hair cutting. So the swell work done by the Brothers must end. Nice unionism!

Now You Tell One

According to the wayward press, fires are so scarce in Camden (S. C.) that a rat took up residence in fireman Peter Bradley's boot and raised a family. Bradley is reported to have said he hadn't had occasion to use his boots in five months. Who's the next candidate for the Ananias Club?

Another "Believe It or Not"

Volunteer firemen at Belle Valley (O.) ran out their "pumping apparatus" (as the Zanesville (O.) Signal describes it), for the first time since 1920 to fight a fire which destroyed a two-story building. The community, three miles north of Caldwell (O.), has an old pumper which, according to the vamps **hasn't been used for the last 20 years** and which worked perfectly for two hours when it was called on to "cool off" a nearby residence and keep flames from spreading. Don't tell us the Belle Valley vamps all wear long beards!

Clipped Casualties

Four persons, a woman, granddaughter, 6, husband and stepfather died in a fire which started in kitchen oil stove and destroyed 3-story, 8-room house in Medford, N. J.

While their parents were away, four small children of Mr. and Mrs. Jerry Porcille, Utica, N. Y., burned to death, all huddled in one bed. Fire's origin not known.

A charred skeleton, believed to be that of woman, was found chained to inside of an automobile, near Beltville, Md. Police say condition of auto, badly burned inside and out, indicated car and body had been soaked with gasoline.

A 16-months-old baby was burned to death and parents, Mr. and Mrs. Edward Frey, were injured in fire that badly damaged hatchery in Meadville, Pa. Starting in living quarters above hatchery, parents were unable to get to infant to save it.

A Word with Our Contribs

Thanks to Charles Mensing of the Toledo F. D. who sends us the swell story of the fire at Toledo's St. Vincent's Hospital and the "sweller" work of local blaze-beaters. . . . Glad to hear from R. H. Selig, Compiler for the Phoenix Society of San Francisco, who confesses that he occasionally "borrows" from this column for the Society's excellent fire bulletin. . . . Earle Robinson of Des Moines: If we don't use but a fraction of the sackfull of splendid items you send it's solely due to lack of room, not desire. Thanks! . . . To Charles M. Fales, Ex-Chief, Haverstraw (N. J.) F. D. If this Scribe and Johnny Weisberger, our "demon contributor," upset any applecarts by printing the story of the controversy between the Village of West Haverstraw and the Town of Haverstraw, we both apologize. We took the story as we got it, from the city papers and are glad to know that the Village of Haverstraw and Chief Feeney of its department were "in no way interested in the controversy." Thanks for your kindly letter and clippings giving the facts. . . . To Bill Patterson, Pittsburgh F. D., hope your "postman's holiday" was a success. . . . Thanks to the many others who have sent in material which, for one reason or another couldn't be used at the time but is "on file."

New Job for Firemen—First Aid to Lobsters

We've recounted many a queer task that firemen are given outside the strict calling of their duty, but this'un about takes the cookies. A contrib' from Tunk Lake (Me.), "Chief Stanwood," tells us about the vamps of Boothbay Harbor (Me.) who were summoned to the state lobster rearing station by Sea and Shore Fisheries Commissioner Arthur Greenleaf, who asked 'em to come as fast as though they were going to a fire. When they arrived, it developed that the station pumping equipment had broken down and about 1,000,000 of valuable "fourth stage crustaceans" (little lobsters to you) were in dire need of circulating water to prevent suffocation. From what we understand, the Brothers "seen their duty and they done it" and as a result a million more lobsters will live—or die—to satisfy hungry palates.

Another "Ripley"?

An unnamed New England reader sends us a story vouched for by the Bangor Daily News anent a new use for beer discovered by Belfast (Me.) police. One night in wee sma' hours, some rubbish caught fire in the basement of the Jones Sea Grill, Belfast, and the smoke from the smudge was noticed by one of the night patrolmen.

By the time the officer was able to gain entrance (yeah—he tried to bust in before "pulling the box") the heat from the fire had melted the lead pipes running from beer kegs to the bar—and believe it or not, the resultant spray of beer and foam had extinguished the blaze! So completely was the fire "soused" that the aforesaid officer did not even ring in an alarm, which, in view of the nature of the affair seems like a dirty trick on the Brothers of Belfast!

Hot Hen—Near Holocaust

Perry O. Popp, Rochester (N. Y.) vouches for this. In Canandaigua (N. Y.) a chicken waiting its turn for execution, flew the coop and alighted on a burning oil stove. The stove overturned, igniting the fowl's feathers. In its efforts to escape, the flaming fowl set a fire which destroyed the fish and poultry shop of Carl Christoph and injured one fireman. Seventy-five live chickens also went up in smoke. Brothers under Chief Wm. Schoemaker held fire to the shop. Cause of the blaze listed as "fowl play."

(*Continued on page* 426)

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Marine Fire Fighting

(*Continued from page* 413)

ern firefighting appliances for combatting ship, pier and waterfront fires. Each boat is equipped with two-way radio.

The boats are berthed at strategic points and cover 578 miles of waterfront in addition to 193 miles on the Jersey side. All fire alarm hoxes in important sections of the city within 1,000 feet of the waterfront have fireboat assignments. The boats operate at land fires as well as ship and pier fires. It is possible for the fire fleet to pump water into the high pressure system if necessary, and furnish 96,000 gallons of water per minute at 150 pounds pressure. This would be most essential if the high pressure pumps were out of commission. In conclusion I might add that it is within bounds for me to say that no harbor in the world enjoys fireboat protection equal to that of New York City.

Cadet Firemen

Two cadet firemen are working for the fire department of East Cleveland, O., under a new system adopted by the Cleveland suburbs to attract recent high school graduates into the fire service. The cadet plan seeks graduates between the ages of eighteen and twenty-one, who take a regular civil service examination for appointment.

Cadets have the same duties as regular firemen and are subject to all department rules, except that they are not required to purchase the regulation uniform. At the end of a three-year period they become eligible for appointment as regular firemen with only a physical examination required.

The cadet receives $80 a month as salary in the first year, $100 a month the second year, and $125 the third. If he becomes a regular fireman, his pay starts at $150 a month and increases to $200 a month in the fifth year.

The value of the apprentice plan is in its aid in recruiting better firemen and the establishment of a longer probation period. With a three-year apprenticeship, the Fire Chief and the city Manager will have more opportunity to ascertain the fitness of recruits for work as regular firemen before they are finally added to the force.—*News Bulletin*, Public Administration Clearing House.

Greenville Receives Drill Tower

At a recent meeting of the East Carolina Firemen's Association, M. O. Minges, prominent Greenville, S. C., business man announced a gift of $5,000 to the Greenville Fire Department for the erection of a drill tower. Heretofore the firemen have had to go to Wilmington for drilling facilities.

The drill tower will be made available to all East Carolina towns desiring to train firemen. This tower is considered as one of the most outstanding gifts ever to be made to the local firemen.

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Watch Desk

(*Continued from page* 424)

Hot Off the Ticker

Shortsville (N. Y.) Fire Department president, Arthur Schaefer, hadda call out his pals when truck he was driving took fire and was destroyed near Penn-Yan. . . . When fire broke out in Moscow (Russia) Central Park for culture and rest, 1,200 children were led to safety. . . . In June 1939 seven Chinese were burned to death in Doyers St., New York City. So when the rebuilt tenement seemed afire, recently, there was a near panic among the Chinese inhabitants of the neighborhood. . . . 5,000 Vamps, with 40 bands paraded at Manhasset, L. I. (N. Y.) at Nassau County Firemen's Assn. gathering. . . . Dr. R. A. Cooley's auto sounded its own fire alarm, enabling him to escape from his home, when garage took fire. The "short" which caused fire, sounded alarm. . . . Because he "playfully" inhaled gasoline fumes, Theodore Barney, 10, Rawlins (Wyo.), died. . . . A pilot flying supplies to forest fire-fighting crews was killed and co-pilot seriously injured when their plane crashed in Bitter Root mountains of Western Montana. . . . Inquiries are being conducted into the disaster that took toll of 63 at Kopper's Coal Co. mine explosion, Sonman (Pa.). Charles Amann Jr., 12, Stockholm (N. J.) dropped a lighted match into a 50-gallon steel drum, one of five which his father had secured for a diving raft. Container had been used to store raw linseed oil. Resultant explosion killed him. . . . Five persons died, two seriously injured in fire at Holy Family Home, Cincinnati. . . . Three men killed, five critically hurt in explosion of boiler of Frisbee Lumber Co.'s sawmill, Holcomb (Mo.). . . . At Ventura (Calif.) twelve circus animals, all film veterans —seven tigers, three camels and two trained elemphants—died in spectacular fire. Elephants, driven mad by fire, stampeded and broke water supply line, increasing firemen's troubles. . . . Seventeen-year old Water Makinson, Philadephia (Pa.) inadvertently started two fires when he fainted in a paint shop and dropped bucket of gasoline. Flaming fluid burned him. Workers tossed bucket out the window where it landed on stairway and started second blaze. . . . Two sisters died, 11 persons injured, when gasoline tank on a truck exploded and took fire as a result of collision of truck and station wagon near New Castle (Ind.). . . . Brothers of New York City F. D. helped prevent suicide of James Williams, negro, when he was found dangling from tenth story window of hotel. His foot had caught between radiator and the wall and he was unconscious when rescuers pulled him back into window. . . . The enlarged army maneuvers has necessitated increased forest fire patrols in New York State. . . Wm. Brown, 35, truckman attached to H. & L. No. 6, N. Y. F. D. was severely injured as result of a "sparring match" with a friend (who was arrested). IN THE DEATH OF DEPUTY CHIEF JAMES TURBIDY, 2ND DIVISION, NEW YORK FIRE DEPARTMENT, AS A RESULT OF INJURIES SUSTAINED IN LINE OF DUTY, THIS WRITER HAS LOST A REAL FRIEND—AND THE FIRE SERVICE ONE OF ITS MOST OUTSTANDING LEADERS.

They Never Learn!

We'd just closed this page when the following reached us. It's important—if tragic. What's the old saying about "truth shouted down a well"? Well, FIRE ENGINEERING has been shouting against these things for year—and yet some people never learn—and firemen "go once to the well too often."

BRISTOL, N. H., Aug. 6 (From United Press)—Four men died one by one at the bottom of a 40-foot well here late yesterday.

Martin Keefe, 43, went down to find out why a gasoline motor was no longer sucking out water. He toppled off the ladder into five feet of water.

Verne Tilton, 44, went down to rescue Keefe. Forest Martin, 43, went down to rescue Keefe and Tilton. Earl B. Wells, 23, went down to rescue Keefe and Tilton.

Albert Paddleford, 60, had presence of mind enough to grasp the ladder rung as he was losing consciousness. By this time persons around the well realized that there was gas, and the next would-be rescuer wore a mask. Paddleford probably will recover. (The others all died!)

Keefe contracted to clean the well. He didn't know the motor was backing carbon monoxide into the well. Wells, Tilton and Paddleford were firemen. . . .

Camden Fire

(*Continued from page* 416)

top quota of 208 men, but now there are 158 men. Although there have been no new appointments to the department within the past four years, this did not affect the ratings of the National Board of Fire Underwriters. Camden receives the rating of fifth place for cities of its size. The equipment consists of nine engine companies and three truck companies, eleven pumpers, nine hose wagons, one emergency truck and three Chiefs' cars. Camden was one of the first cities in this country to be fully motorized. With Camden's Fire Department and the Philadelphia contingent of nine engines, at least thirty companies and approximately five hundred men, from the volunteer department of the neighboring towns, aided in abating the flames. Chief Lennox said that if it had not been for the outside help the city would have been in ruins.

"Second Alarmers" on Duty

The "Second Alarmers" from Chester, Willow Grove, and Philadelphia were quick to respond. They worked throughout the day and night as well as the following day feeding the weary firemen. The Willow Grove squad, under Chief George Volz, operated a dressing station and first aid unit. Although constantly in danger, none of the fire extinguishing force was seriously injured. However, one Camden fireman died from the effect of the heat and exhaustion. Among the Volunteer Rescue Units was the finely trained squad from the nearby R.C.A. plant.

A report was circulated that sabotage had something to do with the explosion, but this has been discounted by the officials of the company. Chief Lennox was of the opinion that the fire was caused by spontaneous combustion, such ignition being likely to occur in chemical plants.

Convention Dates

Aug. 12-17 — NORTH CAROLINA STATE FIREMEN'S ASSOCIATION. Annual Meeting, Salisbury, N. C. Secretary, John L. Miller, Concord, N. C.

Aug. 12-17—VIRGINIA STATE FIREMEN'S ASSOCIATION. Annual Convention, Bristol, Va. Secretary, R. B. Barker, Newport News, Va.

Aug. 13—FIRE CHIEFS' ASSOCIATION OF VIRGINIA. Annual Convention, Bristol, Va. Secretary, S. Herman Dennis, 1238 Chesapeake Ave., South Norfolk, Va.

*Aug. 16-17—VERMONT STATE FIREMEN'S ASSOCIATION. Annual Convention, Barre, Vt. Headquarters at Hotel Barre and meetings at New Auditorium. Secretary, W. H. Adams, Vergennes, Vt.

Aug. 18-21—NEW YORK STATE FIREMEN'S ASSOCIATION. 21st Annual Convention, Olean, N. Y. Secretary-Treasurer, Arthur Bleau, Bunn and Chestnut Sts., Amsterdam, N. Y.

*Aug. 20-22 — WISCONSIN STATE FIRE SCHOOL. Annual School at the University of Wisconsin, Madison, Wis. Director, Chief Richard Widman, Madison, Wis.

Aug. 20-23 — FIREMEN'S ASSOCIATION, STATE OF NEW YORK. Annual Convention, Dunkirk, N. Y. Secretary, Fred A. Davis, 140 Broadway, Fort Edwards, N. Y.

*Aug. 23-24—CONNECTICUT STATE FIREMEN'S ASSOCIATION. Annual Convention, Danbury, Conn. Secretary, D. W. Harford, South Norwalk, Conn.

Aug. 26-29—NORTH CAROLINA STATE FIREMEN'S ASSOCIATION. Annual Convention, Salisbury, N. C. Secretary, John Miller, Concord, N. C.

Aug. 27-30 — DOMINION ASSOCIATION OF FIRE CHIEFS. Annual Meeting, Brantford, Ont. Secretary, James Armstrong, Kingston, Ont.

Aug. 29-31 — WEST VIRGINIA FIREMEN'S ASSOCIATION. Annual Convention, New Martinsburg, W. Va. Secretary, H. G. Fridinger, Martinsburg, W. Va.

Sept.—NEW JERSEY STATE FIREMEN'S ASSOCIATION. Annual Convention, Atlantic City, N. J. Secretary, Evans F. Benners, 24 Branford Pl., Newark, N. J.

Sept. — LOUISIANA STATE FIREMEN'S ASSOCIATION. Meeting at Thibodaux, Secretary, Edward Wright, Houma, La.

Sept. 3-6—MARYLAND SHORT COURSE FOR VOLUNTEER FIREMEN. Annual School at the University of Maryland, College Park, Md. Director, Chief J. W. Just, College Park, Md.

Sept. 3-5—KENTUCKY FIREMEN'S ASSOCIATION. Annual Fire School at Bowling Green. Secretary, V. A. Beam, 2221 W. Broadway, Louisville, Ky.

Sept. 11-12—DELAWARE VOLUNTEER FIREMEN'S ASSOCIATION. 20th Annual Convention, Smyrna, Del. Secretary, Warren W. Pettyjohn, Dover, Del.

Sept. 16-17—TEMISKAMING FIREMEN'S ASSOCIATION. Annual Convention, New Liskeard, Ont. Secretary, F. E. Thompson, New Liskeard, Ont.

Sept. 17-18—IOWA FIREMEN'S ASSOCIATION. Meeting at Emmetsburg, Ia. Secretary, Paul A. Soener, Independence, Ia.

*Sept. 17-19—INDIANA FIRE DEPARTMENT INSPECTORS SCHOOL. The school to be held at the Indiana State Fairgrounds, Indianapolis, Ind. State Fire Marshal, Clem Smith, State House, Indianapolis, Ind.

Sept. 23-26—CALIFORNIA STATE FIREMEN'S ASSOCIATION. Annual Meeting, San Jose, Cal. Secretary-Treasurer, Harry E. Strasser, 2046 Oregon Ave., Long Beach, Cal.

Sept. 25-26—TENNESSEE FIREMEN'S ASSOCIATION. 10th Annual Convention, Pulaski, Tenn. Secretary, J. J. Martin, Nashville, Tenn.

Oct. — FIRE CHIEFS OF MAINE. Quarterly Meeting at York Harbor, Me. Secretary-Treasurer, Charles W. Bowker, South Paris, Me.

Oct.—ARKANSAS STATE FIREMEN'S ASSOCIATION. Meeting at Russellville, Secretary, H. D. Compton, Little Rock, Ark.

Oct. 3-5—ALABAMA STATE FIREMEN'S ASSOCIATION. 5th Annual Convention, Tuscaloosa, Ala. Secretary, G. E. Crossett, Birmingham, Ala.

Oct. 8 — STATE ASSOCIATION OF FIRE CHIEFS OF MAINE. Meeting, York Harbor, Me. Secretary-Treasurer, C. W. Bowker, South Paris, Me.

Oct. 14-16—SOUTHWESTERN ASSOCIATION OF FIRE CHIEFS. Annual Meeting, Hotel Tulsa, Tulsa, Okla. Secretary-Treasurer, J. R. Pence, Stillwater, Okla.

Oct. 14-17 — INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION. Annual Meeting at Jacksonville, Fla. General Chairman, George Allen, Supt. of Fire Alarms, Jacksonville.

Oct. 15-17—ILLINOIS FIREMEN'S ASSOCIATION. Annual Convention, Murphysboro, Ill. Secretary, R. W. Alsip, Champaign, Ill.

Oct. 15-17—NEBRASKA STATE VOLUNTEER FIREMEN'S ASSOCIATION. Annual Meeting, Omaha, Neb. Secretary, Louis A. Novak, Norfolk, Neb.

Oct. 23—FAIRFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Monthly Meeting, fire house, Ridgefield, Conn. Secretary, John H. Moehring, Belltown, Conn.

Nov. 20—FAIRFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Monthly Meeting, fire house, New Canaan, Conn. Secretary, John H. Moehring, Belltown, Conn.

Dec. 18—FAIRFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Monthly Meeting, fire house, Springdale, Conn. Secretary, John H. Moehring, Belltown, Conn.

*The notices marked with an asterisk are either appearing for the first time or have been changed since the preceding issue.

Fire Starts in Carnival Train

A "crazy house" car attached to a circus train, enroute from Hawthorne, N. J., to New London, Conn., was wrecked by a $15,000 fire on June 16. Sparks from the train's engine ignited the car's canvas top as the train passed over the Naugatuck Avenue Bridge at Devon, Conn.

The flat car, one of ten in the train, carried three gaily covered wagons in which equipment for the carnival's "Big Apple" crazy house amusement was stored. The carnival is owned by "The World of Mirth" of Richmond, Va.

Damage to the car and to an adjoining one, which housed the carnival's $18,000 merry-go-round, was estimated at $15,000 by Assistant Chief Ernest I. Cox of the Milford Fire Department, who led Devon and Milford firemen in a half-hour battle to extinguish the blaze. Several hundred carnival workers, whose quarters were in the rear cars of the train, fled the fire.

"The Crazy House" wagons burned like tarpaper after sparks had nestled on its roof. The flames spread quickly to the merry-go-round car and both were a mass of flames when firemen arrived on the scene. The two burning cars were uncoupled by firemen. The alarm was received at Milford Fire Headquarters at 11:08 p. m. and the recall was one-half hour later.

THOMAS F. MAGNER.

Dallas, Tex., Prepares Campaign

The Dallas Civitan Club, in cooperation with the Dallas Fire Department and the Dallas Fire Prevention Council, issued a booklet, "Fires and How to Prevent Them," which is a fire prevention manual for use in the Dallas Public Schools. The object of the fire prevention campaign, which is to be started this coming September, is to stop 10,000 or more fires before they ever start.

The manual contains a clear, concise conception of fire. It outlines the campaign that is to be carried on by the Civitan Club, and discusses the history of fire and fire fighting. A list of the various fire hazards is presented along with a description of these hazards so that they will be easily recognized in the home should they exist there. There is included a comparative statistical list of the United States fire losses as compared with the Dallas losses both total and per capita losses.

QUAKER FIRE HOSE

ORDERS—big orders . . . little orders go through the Quaker plant with remarkable rapidity. 576,000-foot order recently completed in record time and ahead of schedule. When you order Quaker Fire Hose, whether for only a few feet or thousands of feet, you are sure of quick service.

Every foot of Quaker Fire Hose is expertly made . . . manufactured with scrupulous care from the selection of long staple cotton yarn, employing skilled mechanics, until the final process of testing the finished hose . . . Quaker's one thought is to safeguard lives and property from the ravages of fire. Give your City the best protection—insist on Quaker Fire Hose . . . flexible, easy to handle, coils readily and is fully guaranteed.

Samples gladly furnished. Multiple Jacket Hose made in four distinct and different constructions.

QUAKER RUBBER CORPORATION

Main Office and Factory: **PHILADELPHIA**

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NEW YORK • CHICAGO • HOUSTON • SAN FRANCISCO

PROMOTIONAL STUDY COURSE

Herein is presented a series of definitions, questions and answers designed to aid fire department officers in preparing themselves for promotional examinations. In this department, which appears monthly, will be included questions typical of examinations held throughout the country.

Answers to these questions will appear in September issue of this journal:

Question 1. Why is there a severe life hazard at a clothing factory fire?
Question 2. What materials may you expect to encounter at such a fire?
Question 3. What should the first engine company first do in reaching such a fire?
Question 4. If a large number of persons are in danger and if the building is fully charged with smoke what should first company arriving do?
Question 5. What precautions should be observed in overhauling after such a fire?
Question 6. What is the chief precaution to take in fighting a crockery store fire?
Question 7. What peculiarity of construction is found in cold storage plants?
Question 8. State two life hazards in connection with ammonia refrigerating plants.
Question 9. State two other gases beside ammonia commonly used in commercial refrigerating machines.
Question 10. Has water a beneficial or detrimental effect when used at refrigerating plant fires?
Question 11. Is the life hazard in a one-story department store usually considered severe?
Question 12. At a large department store fire, occurring in business hours, is it good policy to stretch hose lines up stairways?
Question 13. How should lines be stretched to upper floors in early stages of fire?
Question 14. What is the chief hazard in connection with a small fire in a large department store during business hours?
Question 15. How should ventilation be provided at such a fire where it has gained considerable headway?
Question 16. Where egress of occupants is impeded by presence of revolving doors, what should be done?
Question 17. Why is there a severe life hazard at a day nursery fire?
Question 18. Is it safe practice in an emergency to drop children of two years or over into life nets from a height of the third floor?
Question 19. What precautions should be taken by those searching rooms for the children at fires?
Question 20. Should small infants be dropped to life nets?
Question 21. An engine is pumping through 600 feet of 3½-inch hose with reducer coupling connected to 200 feet of 2½-inch hose equipped with 1¼-inch nozzle. Seventy pounds is wanted at the nozzle. What pressure will be required at the engine?
Question 22. What is meant by a "Dry Sprinkler System"?
Question 23. Where are these systems needed?
Question 24. The dry system is not considered as effective as a wet pipe system. Why?
Question 25. What is the device called which is used for holding the water back in a dry pipe system?
Question 26. What size ring nozzle is the average sprinkler outlet equivalent to?
Question 27. Are heads with greater openings than this ever encountered, and if so where are they used?
Question 28. What is the approximate discharge from a sprinkler head at 25 pounds pressure?
Question 29. Does a 6,000-gallon pressure tank in service carry 6,000 gallons of water?
Question 30. What is the purpose of a "steamer connection" on a sprinkler system?
Question 31. What is the chief advantage of a standpipe system in a building?
Question 32. Should fire apparatus be washed with hot water?
Question 33. Is a richer mixture of gasoline needed when starting the engine or after engine has heated up?
Question 34. If engine is too cold to start by the ordinary method what should be done?
Question 35. What percentage of alcohol should be added to the water in the radiator to lower its freezing point to five degrees fahrenheit?
Question 36. At what temperature will a storage battery freeze when it is one-quarter discharged?
Question 37. Name five points to be considered in daily inspection of apparatus.
Question 38. Is the rotary pump a positive displacement?
Question 39. How many pump gears are there in a rotary pump?
Question 40. Are rotary pumps ever provided with air chambers?
Question 41. Is a fire engine equipped with rotary pump able to give its greatest discharge at high pressure or low pressure?
Question 42. Where is ethane commonly used?
Question 43. Why is hydrocyanic acid gas dangerous when encountered at fires?
Question 44. Is hydrogen sulfide poisonous if inhaled?
Question 45. Why is oxygen troublesome at fires?
Question 46. Where is ethyl chloride usually found and in what way is it dangerous?
Question 47. For what two purposes is sulphur dioxide commonly used?
Question 48. Is it inflammable?
Question 49. Why is aluminum dust dangerous from a fire standpoint?
Question 50. What effect has moisture on aluminum dust when stored in bulk?
Question 51. What gas does calcium carbide generate when subjected to water?

H. B. Wells Dead

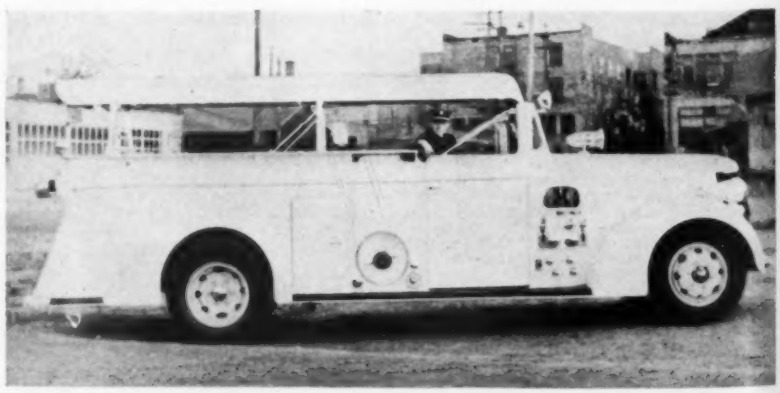
Funeral services were held for Ex-Chief H. B. Wells of the Newberry, S. C., Fire Department, who died at his home on July 19, following a short illness.

The success of the Newberry Fire Department has been due in a large extent to the work of Ex-Chief Wells. He was a member of the department for over fifty years, a greater portion of which he served as Chief. Recently Chief Wells was honored at a banquet which was given in observance of his fifty years as head of the Fire Department.

He was a former President of both the South Carolina Association of Fire Chiefs and the Southeastern Association.

Fort Collins, Colo., Has Efficient Fire Department

Modern apparatus, well trained men, and capable officers have contributed to making the Fire Department of Fort Collins one of the most efficient small departments in the country. T. P. Treadwell is Chief.



Buhl, Idaho, Gets New Pumping Unit

This American-LaFrance 750-gallon pumper was delivered to the city of Buhl. This city has a population of 2,000, with two paid firemen and thirteen call men in the Buhl Fire Department.

FIREMAN'S NEW SAFETY COAT MEETS WITH GREAT APPROVAL

MANY CITIES ADOPT MIDWESTERN COAT

The new Midwestern Safety Coat recently introduced has met with instant success because Fire Chiefs, Firemen, and Safety Boards quickly saw its adoption meant a big decrease in bad accidents.

The picture tells much of the reason for the success of this Midwestern Coat. Firemen can be seen on dark nights—through fog, and smoke. Fewer men will be knocked off ladders and buildings by heavy hose streams . . . will be more easily found in fallen debris.

Midwestern has developed a new exclusive rubber cloth in which the white stripe is molded in. It is rubberized as a part of the material and is not sewed in or glued on.

Another great feature is the famous Midwestern Safety snap that can be instantly fastened or unfastened with one hand.

Note Chiefs: Write for Folder No. 9922 today.

Write for New 1940 *Catalog*

U. S. Pat. No. 1944475
Canadian Pat. No. 345601

MIDWESTERN MANUFACTURING CO.
Mackinaw, Illinois
Manufacturers of a complete line of firemen's quality clothing.

SPECIFY HALE

—Pumping Units for Forrest Fire Fighting Capacities 20 to 750 GPM

Write today for the Catalog and Folders on the complete line of Hale Pumps.

HALE FIRE PUMP COMPANY
CONSHOHOCKEN, PA.

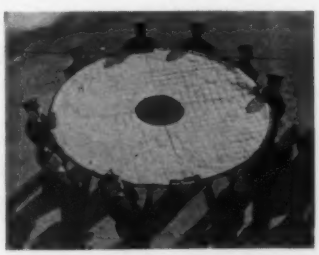
COULD YOUR DEPARTMENT SAVE THIS LIFE?

Not unless your trucks carry life nets!

You have heard of or seen fires like this where ladders can't be used because the building is a mass of flames. How, then, can this person stranded at the 5th story window be saved? With a Life Net, of course! . . . an ATLAS LIFE NET . . . the only Net that has the patented mechanical features to "safe land" jumps from great heights.

Every truck should carry a life net.

Specify ATLAS in your new apparatus. Write for new bulletin.



The 1940 Quarter-Fold Atlas Life Net

ATLAS FIRE EQUIPMENT CO.
26 Warren Street
New York

YOUR BADGE OF HONOR

Something more than a decoration . . . an insignia of courage and unselfish devotion to duty. That badge should be worthy of its place on your uniform . . . let it radiate quality and your pride in wearing it. BRAXMAR has been making badges for more than 60 years.

C. G. BRAXMAR CO., 242 West 55th Street, New York

BRAXMAR BADGES

Standard for Over Sixty Years

HAHN FIRE APPARATUS

Air-Cooled or Water-Cooled
Powered Apparatus

HAHN MOTORS, INC. **HAMBURG, PA.**

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6 NEW **AUTOMATICS** *6 NEW*

SPECIAL SAFETY features for fire fighters

L-O-O-K

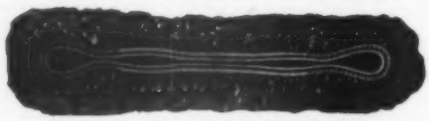
Select Your Own Local Distributor

DISTRIBUTORS . . .

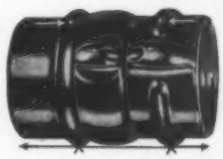
Write for our 16-page catalogue and the liberal . . .

Y-BURN PROFIT PROPOSITION

Y-BURN, INC., 564 W. Randolph St., CHICAGO, ILL.



This is the new LIGHT WEIGHT BI-LATERAL FIRE HOSE



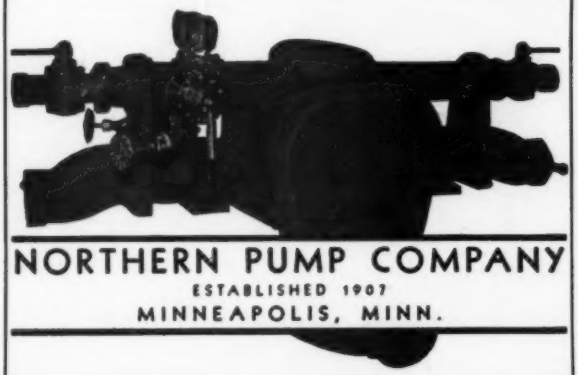
This hose will stand 900 pounds pressure and weighs but 45 pounds to the section uncoupled.

Here's the new DROP-FORGED rocker lug coupling (not cast bronze), with the swivel-protecting feature.

This coupling will stand several expansions and can be used over and over again, saving your city at least 20c to 30c per foot on future hose purchases.

When in the market, let us show you that we can give you the best service obtainable for the least money.

BI-LATERAL FIRE HOSE COMPANY
20 N. Wacker Drive **Chicago, Illinois**



NORTHERN PUMP COMPANY
ESTABLISHED 1907
MINNEAPOLIS, MINN.

EDDY
Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience goes into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.
Waterford, N. Y.

WATEROUS
FIRE PUMPS

A complete line of dependable rotary, single-stage and series-parallel centrifugal fire pumps. Built to high quality specifications.

WATEROUS COMPANY, ST. PAUL

Keep a Simplified Fire Record In

FIRE RECORD BOOK

Enables you to refer to the records of any fire in a moment. You are prepared, at the end of the year, to make a complete, comprehensive report of your fire losses. The book comes in 2 sizes — 700 alarms at $7.50 and 1,400 alarms at $10.00. With each book is sent, free, 250 report blanks which are used to gather information at scene of fire and later transferred to the FIRE RECORD BOOK. Be systematic — use modern record-keeping methods. The coupon is for your convenience.

CASE-SHEPPERD-MANN PUBLISHING CORP.
24 West 40th Street, New York, N. Y.

Enter our order for one FIRE RECORD BOOK
Check one you want
to cost $7.50 $10.00. You are to furnish 250 supplemental report blanks without cost.

City ..... *By* .....

State ..... *Title* .....

Manufacturers' Announcements

Novel Pressure Gauge

A gauge which, attached to the hose outlet on a pumper or hydrant, gives the pressure at the nozzle has just been placed on the market by Morey & Jones, Ltd., of 923 South Hemlock St., Los Angeles, Calif.

Built into the gauge is a venturi-tube, which measures and indicates the flow of water through it. Readings on the scales show the nozzle pressures required on different sized nozzles to discharge the recorded flow of water. Hence, it makes no difference where the nozzle is placed, for the nozzle pressure is shown whether the line is stretched along the ground, up into a building, or down an incline.

Floodlights

The Pyle-National Company, 1334 North Kostner Avenue, Chicago, Ill., have issued two pages from their bulletin No. 2005 on their ten inch and fourteen inch portable floodlight for emergency use.

Ammonia Mask

Announcement has been made by the Mine Safety Appliance Company, Pittsburgh, Pa., of a new descriptive bulletin, No. EE-3, on its M.S.A. Ammonia Mask. The M.S.A. all-vision facepiece has been added to the mask as standard equipment. This greatly enlarges the lens area with complete vision through all viewing angles, yet it avoids waste areas of glass. The complete mask consists of the facepiece, ammonia canister, flexible tube which connects the canister with the facepiece, and a light harness which straps the canister to the worker, leaving his hands free at all times.

Kinetic Energy Chart

Impact and its influences on life nets, is the theme embodied in a Kinetic Energy Chart offered by the Atlas Fire Equipment Company, Inc., 26 Warren Street, New York City. From this chart, Chiefs and Drillmasters can predetermine the force of impacts during life net training and jumping evolutions.

Neoprene

A new sound motion picture produced by the Du Pont Company tells the story of neoprene, a synthetic rubber-like material that is being used to replace natural rubber in a great many products essential to our national well being. This timely twenty-minute film shows how neoprene is made, explains its chemical formula by means of animated cartoons, shows interesting tests of the material, and pictures hundreds of applications of products made from it.

The material itself, made from coal, limestone, salt and water, can be used wherever rubber is used, but has the additional advantage of being resistant to cracking from sunlight, ozone and aging. It will not swell or deteriorate rapidly from contact with most vegetable or mineral oils and chemicals, nor will it soften or harden appreciably when exposed to high temperatures. In addition, neoprene will not support combustion.

Universal Electric Plants

The Universal Motor Company, Oshkosh, Wis., has issued a folder on their two new series of 650 and 1,000 watt electric plants.

Effect of Waterfog Demonstrated

At the New England Fire Chiefs' Asociation's annual convention at Dixville Notch, N. H., demonstrations were given of extinguishing oil and fuel fires with waterfog by the Rockwood Sprinkler Company of Worcester, Mass.

There were two definite types of Fognozls demonstrated in the test pit, which contained 150 gallons of fuel oil and five gallons of gasoline, the latter being used to ignite the fuel oil.

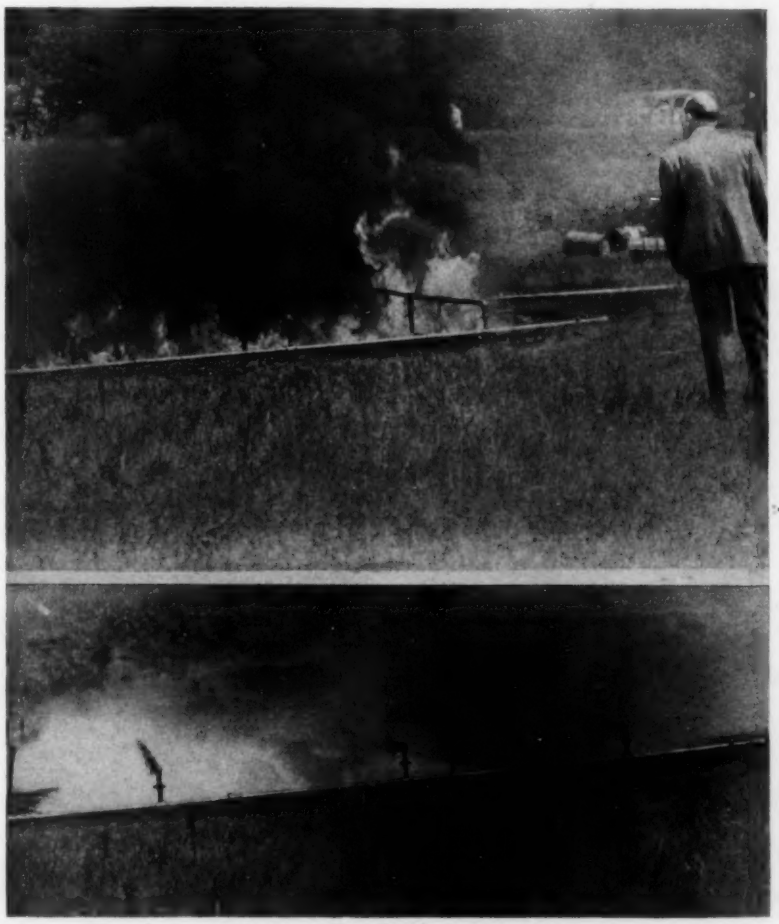
After the fire was allowed to gain its peak, waterfog was produced by six ½-inch type B Fognozls suspended from an overhead pipe. Only five seconds and eight gallons of water fog were required to extinguish the fire.

The second test demonstrated the effectiveness of the one-inch type D Fognozl. In this case the nozzle heads were installed in a pipe that ran around the pit simulating a condition such as would be had with a dip tank or other type of container where the use of the tank is such that the overhead must be left free from piping. In this test four seconds and twenty-five gallons of water fog were required to extinguish the blaze.

The final test that was conducted involved the extinguishing of a straight gasoline fire in a special tank that is used in testing various extinguishing agents. Five gallons of gasoline were poured into the tank and ignited. The fire was allowed to get a good start and the sides of the tank became thoroughly heated before the waterfog was applied. A ½-inch type B Fognozl was used on a hand applicator. The nozzle has been approved of by the Factory Mutual Laboratories for the extinguishment of gasoline fires. The extinguishing time for fire involved was five to six seconds at the most. The hotter the tank became, the quicker the fire was extinguished. At one time, six fires in the tank were extinguished in rapid order.

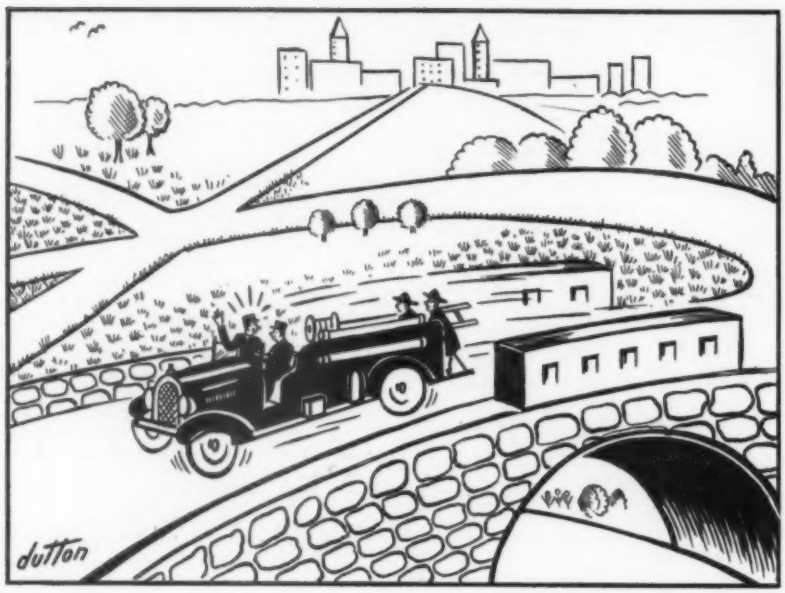
F. W. Bender Elected President

F. W. Bender, Chief of the Saginaw, Mich., Fire Department, was elected President of the Great Lakes Division of the International and Ohio State Fire Chiefs Association, succeeding Chief Welsh of Columbs, Ohio.



Waterfog Is Tested as an Extinguishing Agent

Upper: The pit fire just before the waterfog was applied. Lower: The same fire just five seconds later.



"A fire at the State College for Girls, us with a swell start, and then you get lost! !"

HADN'T MISSED MUCH

A Fire Chief, traveling to a convention on the west coast, was in a compartment on a train with a sailor.

After a while they got into conversation.

"Yes," said the sailor, "I've traveled. Been nearly all over the world in fact."

"Nothing like travel to broaden the mind," said the Chief. "I suppose you know a lot about geography."

"Well, yes and no," replied the sailor, "the ship I was on did put in there to coal once. 'Taint much of a place though, from what I remembers of it."

Men are peculiar, just as women have long suspected. For instance, a fellow who hadn't kissed his wife in five years, shot a fellow who did.

WITH ONE EXCEPTION

The Chief was making the rounds at the local Volunteer Firemen's dance when he met one of the new sparks.

"Well, well," he said, "so you are happily married at last. Allow me to congratulate you." He paused and then added with a sly smile: "I hear you have an excellent and accomplished wife."

The newlywed nodded.

"I have indeed," he replied. "Why, she's at home in music, she's at home in art, she's at home in books, and she's at home in science. In short she's at home everywhere, except—."

"Yes except what?" came the inquiry.

"Except at home," the other dolefully replied.

Finally she grew angry. "I'll give you exactly thirty minutes to get your hand off my knee."

MORE TO FOLLOW

Three retired Chiefs were spending their time hunting in the African Jungle. One day they found themselves in a very peculiar predicament. They had no food and only one cartridge. They drew lots for the use of it. The winner set off, but had not gone far before he was faced by two lions. He immediately fled back to the tent, hotly pursued by the lions.

Just as they made their final spring, he stepped smartly to one side allowing the lions to burst through the tent opening. Quickly he closed the flaps and shouted to his companions: "Start skinning these two while I look around for a few more."

The two figures were snuggled close on the porch swing. His arms were tight around her, and hers held him close. The night was warm and soft, for a long time neither of them spoke, only their quick breath stirring the air. Then she looked up into his face. "Please," she said, "for heavens sake stop snapping that elastic.

LANGUAGE

Professor: "I say, your tubular air container has lost its rotundity."

Driver of Company 3: "What—?"

Professor "The cylindrical apparatus which supports your vehicle is no longer inflated."

Driver "But—."

Professor: "The elastic fabric surrounding the circular frame whose successive revolutions bear you onward in space has not retained its pristine roundness."

Small Boy: "Hey mister, you got a flat tire!"

Q & A DEPARTMENT

Why is it that the coat and pants does all the work and the vest gets all the gravy?

SLEEP WILL DO IT

Professor: "I won't begin today's lecture until the room settles down."

Voice (from the rear): "Go home and sleep it off, old man."

The difference between a hairdresser and a sculptor is that while the hairdresser curls up and dyes, the sculptor makes faces and busts.

R FOR OYSTER

Headwaiter: "Quite a few of our customers have found nice pearls in their soup this season."

Convention Committee: "Oh, yeah. We're not pearl divers. What we hope to find in the soup is an oyster."

They Are Wondering How to Interpret the Sign

AMERICAN-MARSH PUMPS

World's largest pump manufacturers building fire pumps
Pumps--and pumps only--since 1873

Dear Mr. Fire Chief:
Selecting a new fire pump is a tough job. You are held responsible for your recommendation, and there are many reliable fire pumps on the market today. You cannot go wrong, however, if you suggest buying one of our Barton-American **Front Mounted or Midship Mounted** Pumps - because we not only sell an up-to-date fire pump, but give you

HIGHER PRESSURES AT LOWER ENGINE SPEED

the advantage of which you will readily appreciate.

We shall be glad to give you any desired information.
Write us for bulletins and specifications covering our complete line.

Thank you for your attention.

Yours very truly,
AMERICAN-MARSH PUMPS, INC., Battle Creek, Michigan

ELK HART

34 years service in the fire field

•

Prompt service
Quality products

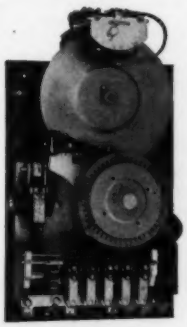
•

A PARTIAL LIST OF ELKHART PRODUCTS

Shut-Off Nozzles
Controlling Nozzles
Turret Pipes
Fire Department Extinguishers
Extinguisher Holders
Fire Truck Body Fittings
Hose House Equipment
All Types Hose Couplings
Sliding Poles, Railings and Canopies
Fog Nozzles
Hose Test Pumps
Threading Tools
Coupling Expanders
Pump and Hydrant Valves
Hose Racks and Cabinets
Siamese Connections
Underwriters' Industrial Extinguishers

Send for illustrated folder on the New Elkhart Mystery Nozzle.

ELKHART BRASS MFG. CO.
ELKHART, INDIANA



HARRINGTON

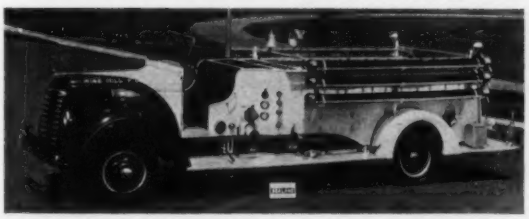
TC-4A TRAFFIC CONTROL

—a moderately priced device for controlling traffic lights on two-street traffic. TC-4A is of the induction disc type and furnished for any number of light circuits up to twelve. Very simple to adjust, flexible with a range of time cycles from 30 to 120 seconds. Supplied with cast aluminum cabinet, 14" x 20" x 8" on order.

Send for bulletin 31.

HARRINGTON SIGNAL CO., Moline, Ill.

ANOTHER SEALAND PUMPER



500 gallon pumper recently delivered to Mine Hill, N. J.

THE SEALAND CORPORATION

Modern Fire Apparatus *Fire Alarm Systems*

Bridgeport, Conn.

HEWITT-GUTTA PERCHA
FIRE HOSE

A complete line, including
Wax Treated - Solid Multiple Woven
AND
Single and Double Jacket Hose

Manufactured by
HEWITT RUBBER CORPORATION
BUFFALO, N. Y.
"Territories Available"

SUPERIOR
MODERN SAFETY EQUIPMENT
A TRUE ECONOMY
BECAUSE
THEY ARE SAFE IN EVERY RESPECT

LIFE NETS
TRAINING NETS
LADDER BELTS
STRUCTURES
LIFE SIZE DUMMIES

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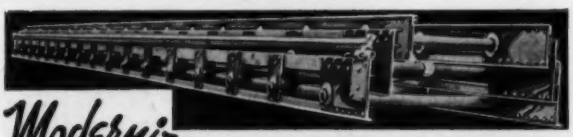

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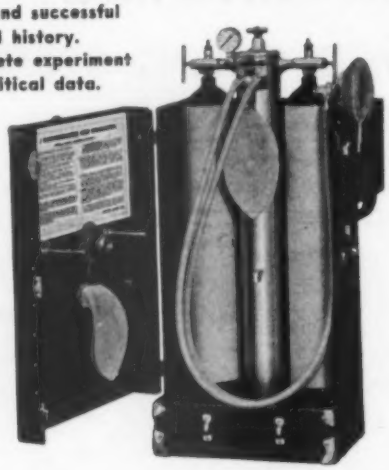

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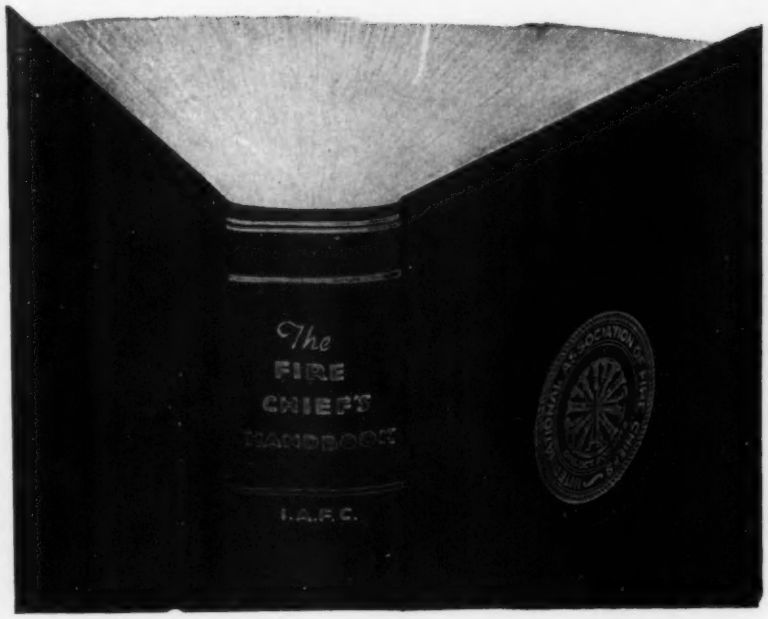

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